

FIG. 1  
(PRIOR ART)

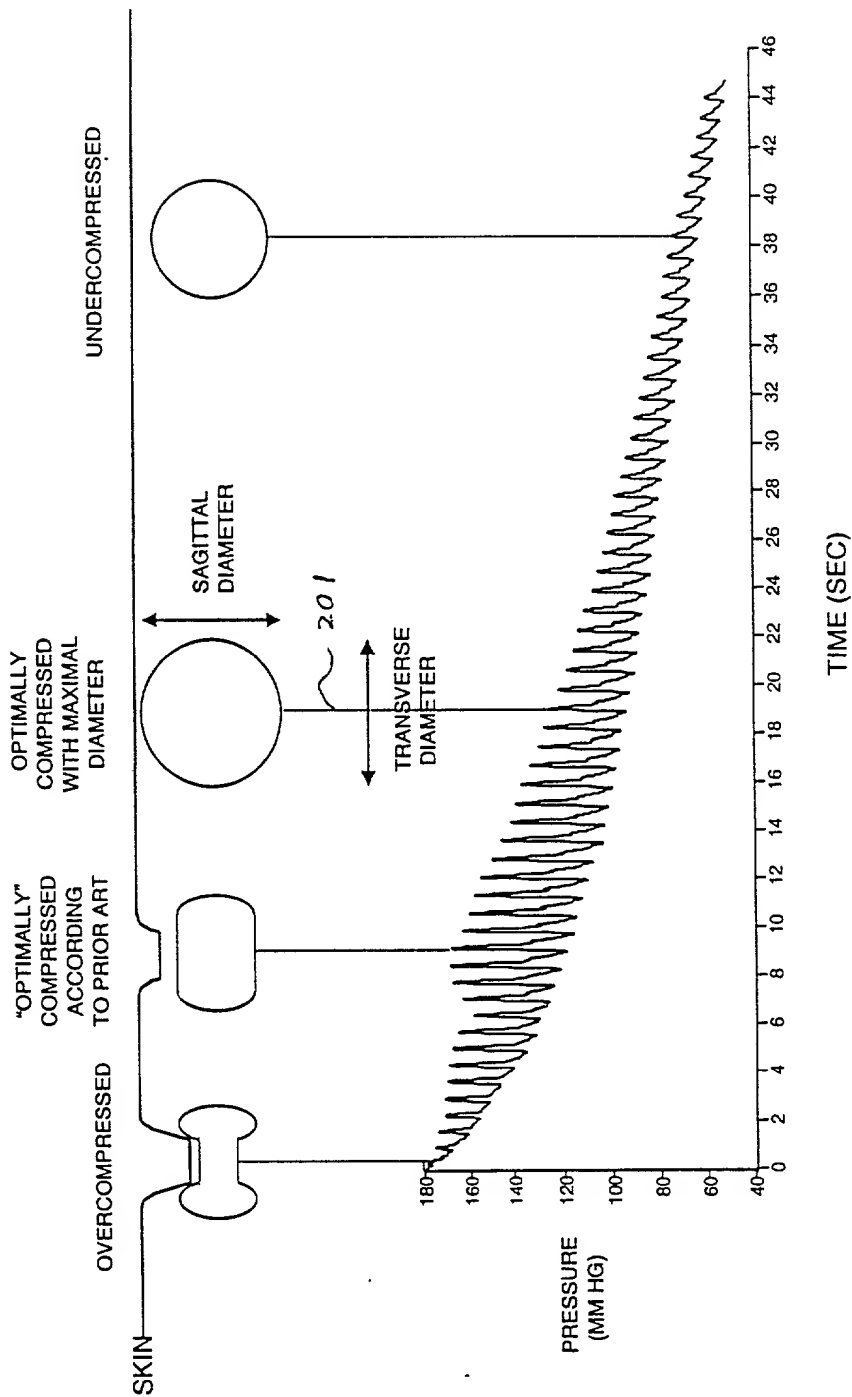


Fig. 2

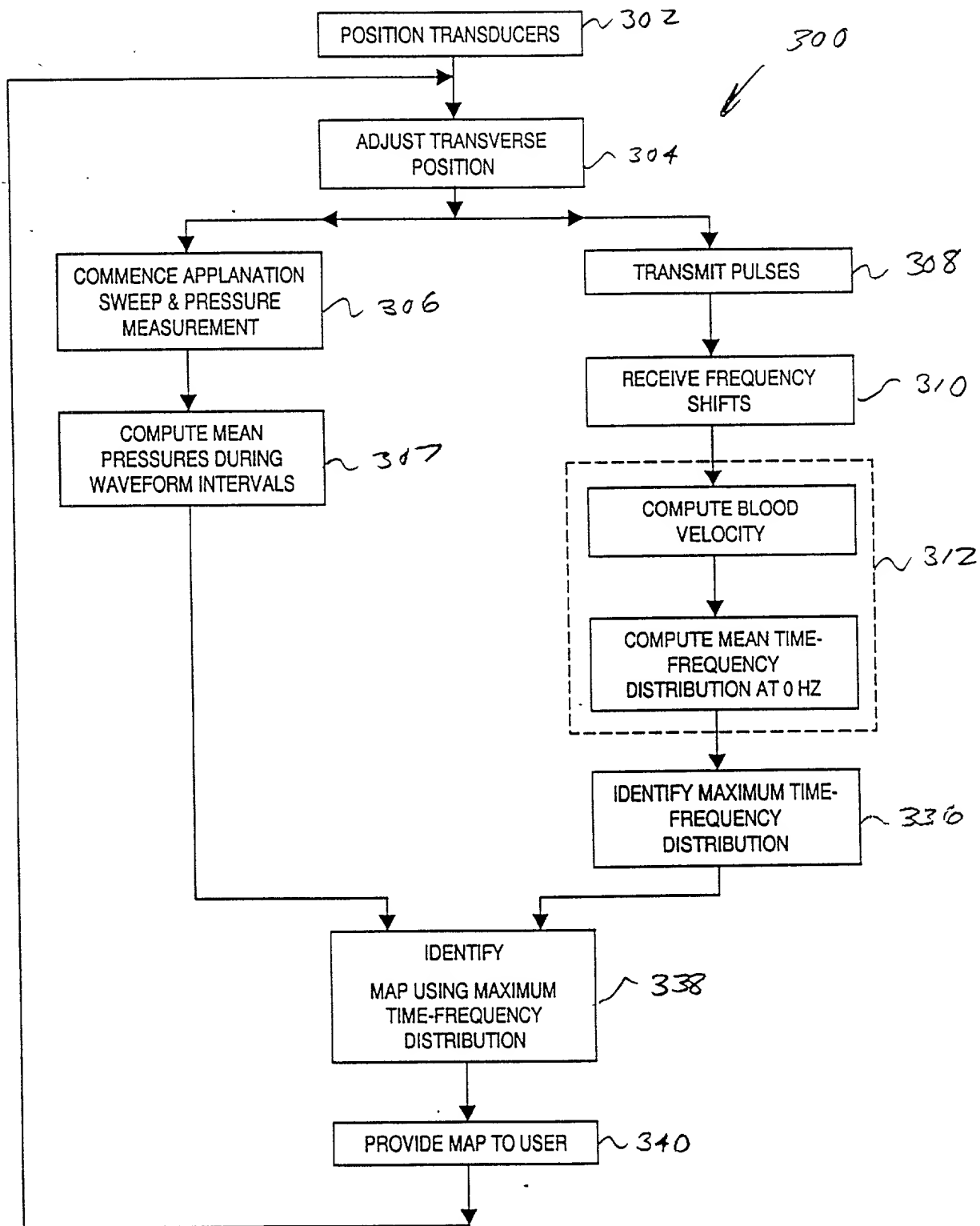


FIG. 3A

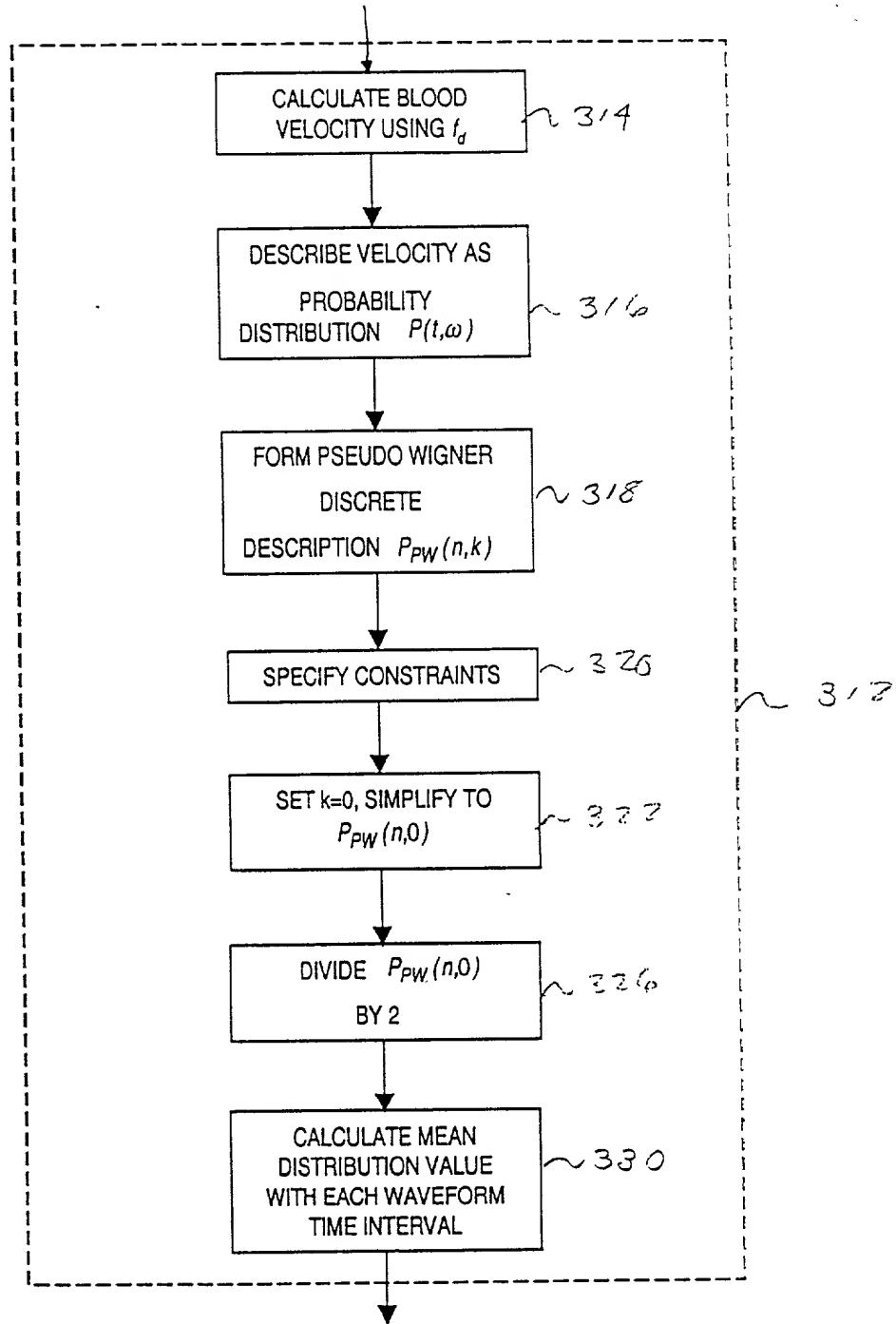


FIG. 36

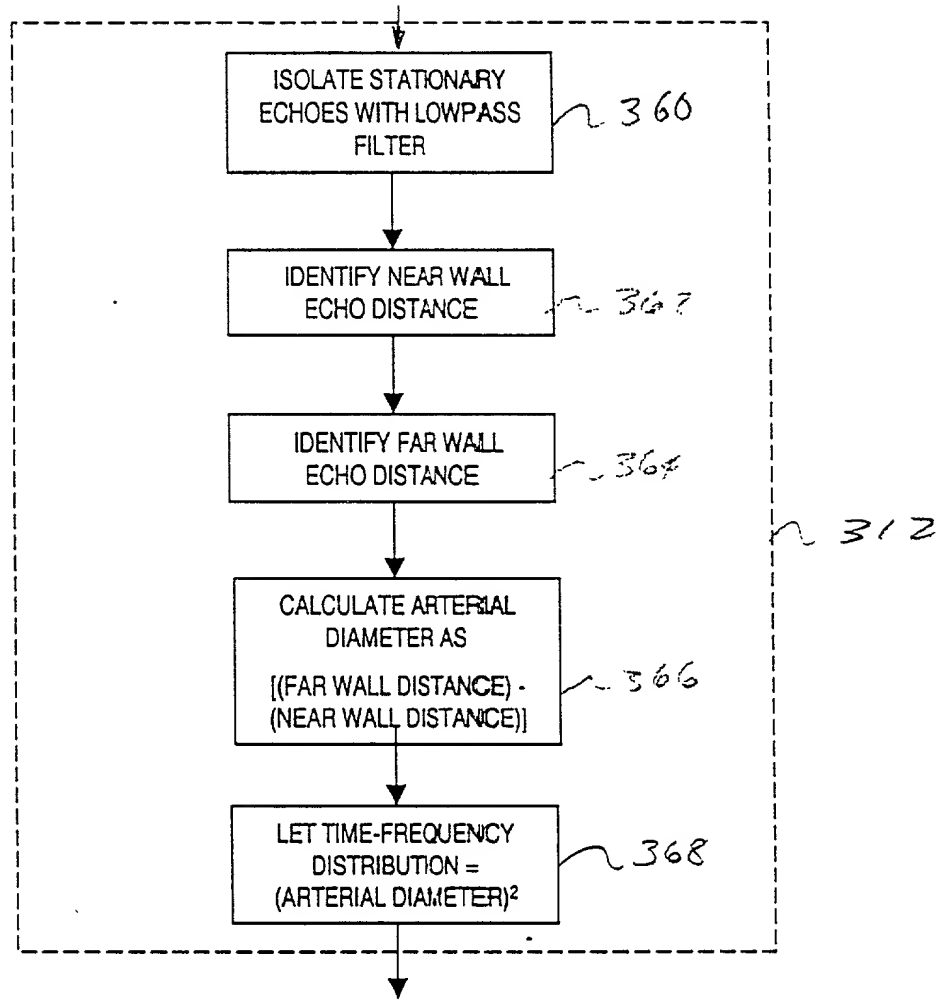


FIG. 3C

FIG. 4a

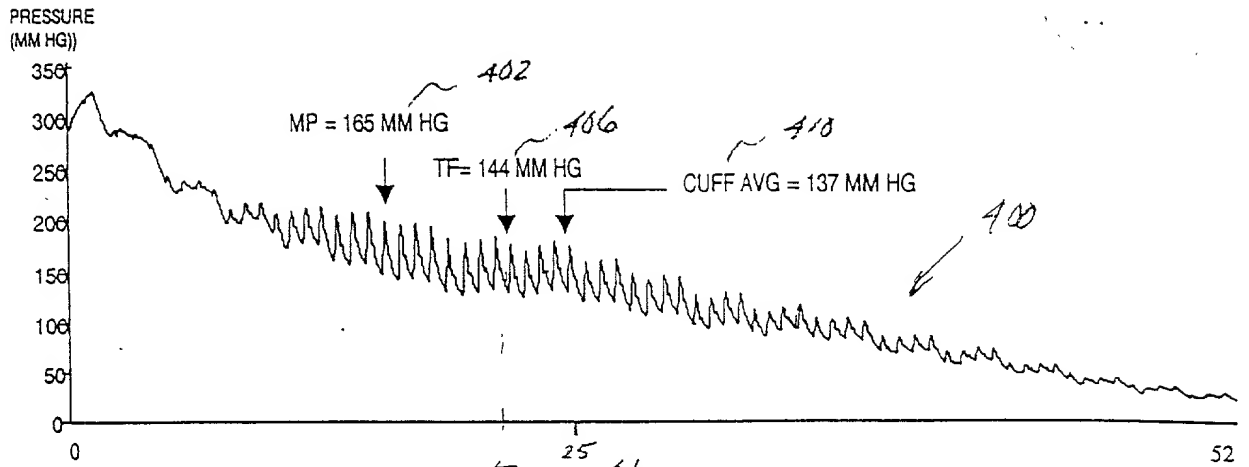


FIG. 4b

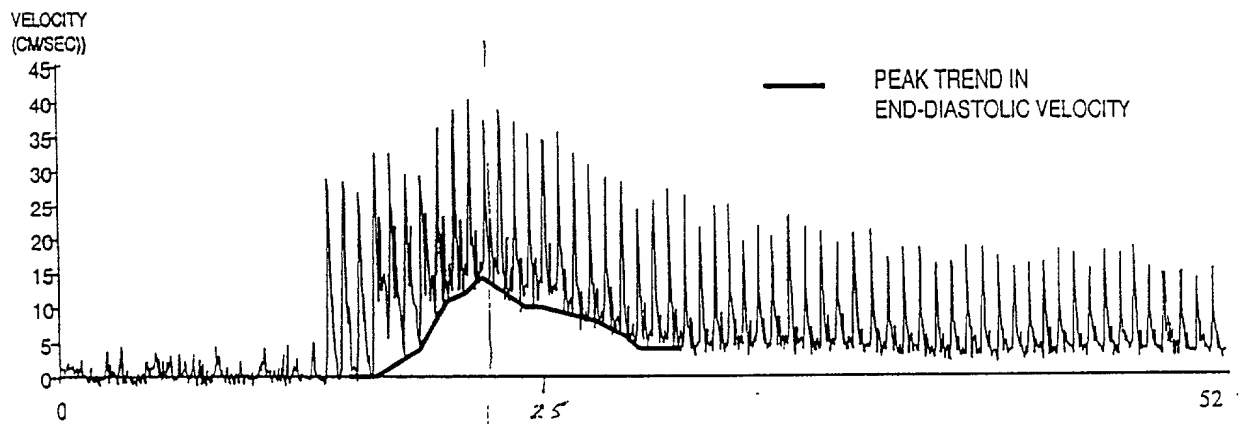
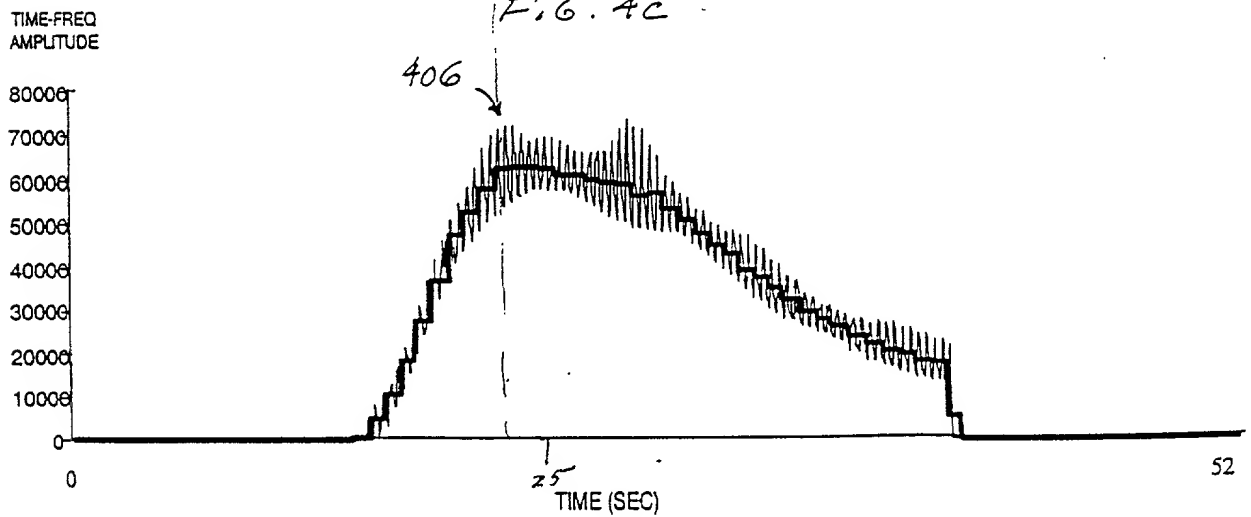


FIG. 4c



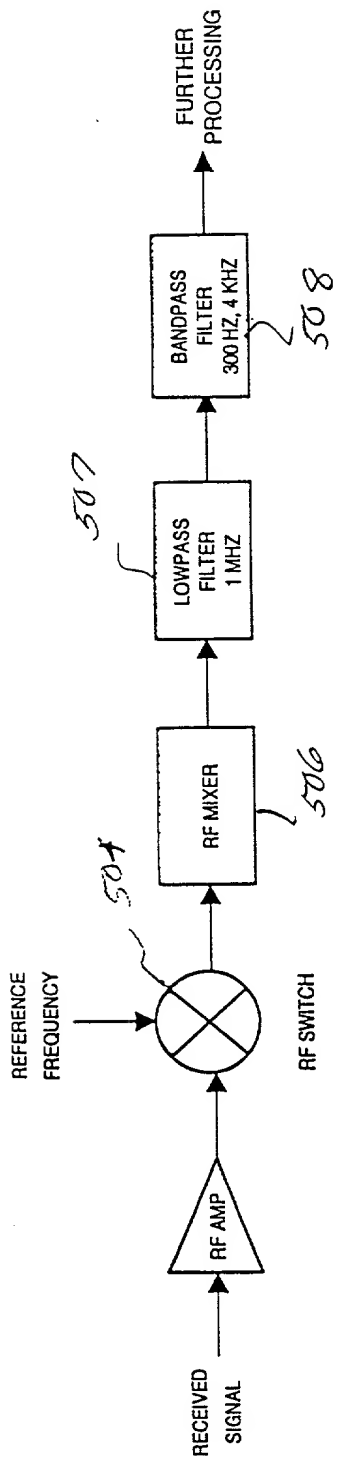


Fig. 5a

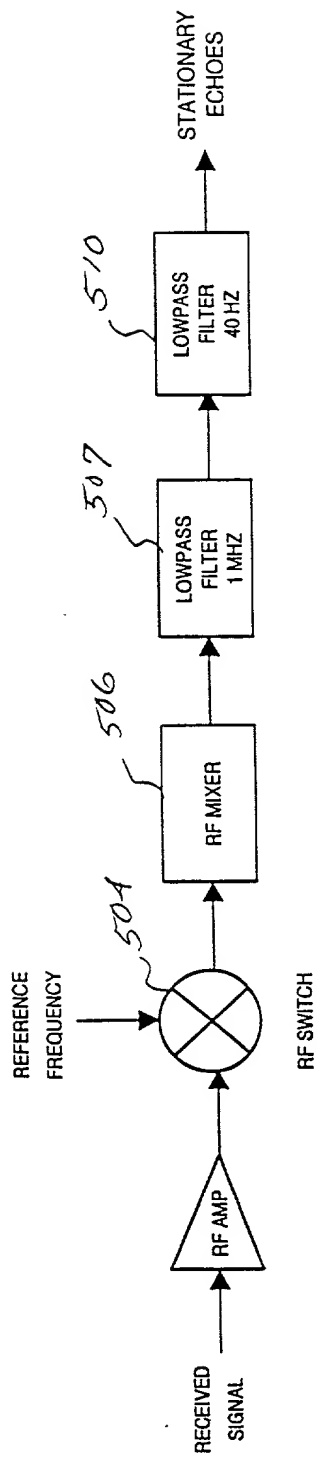


Fig. 5b

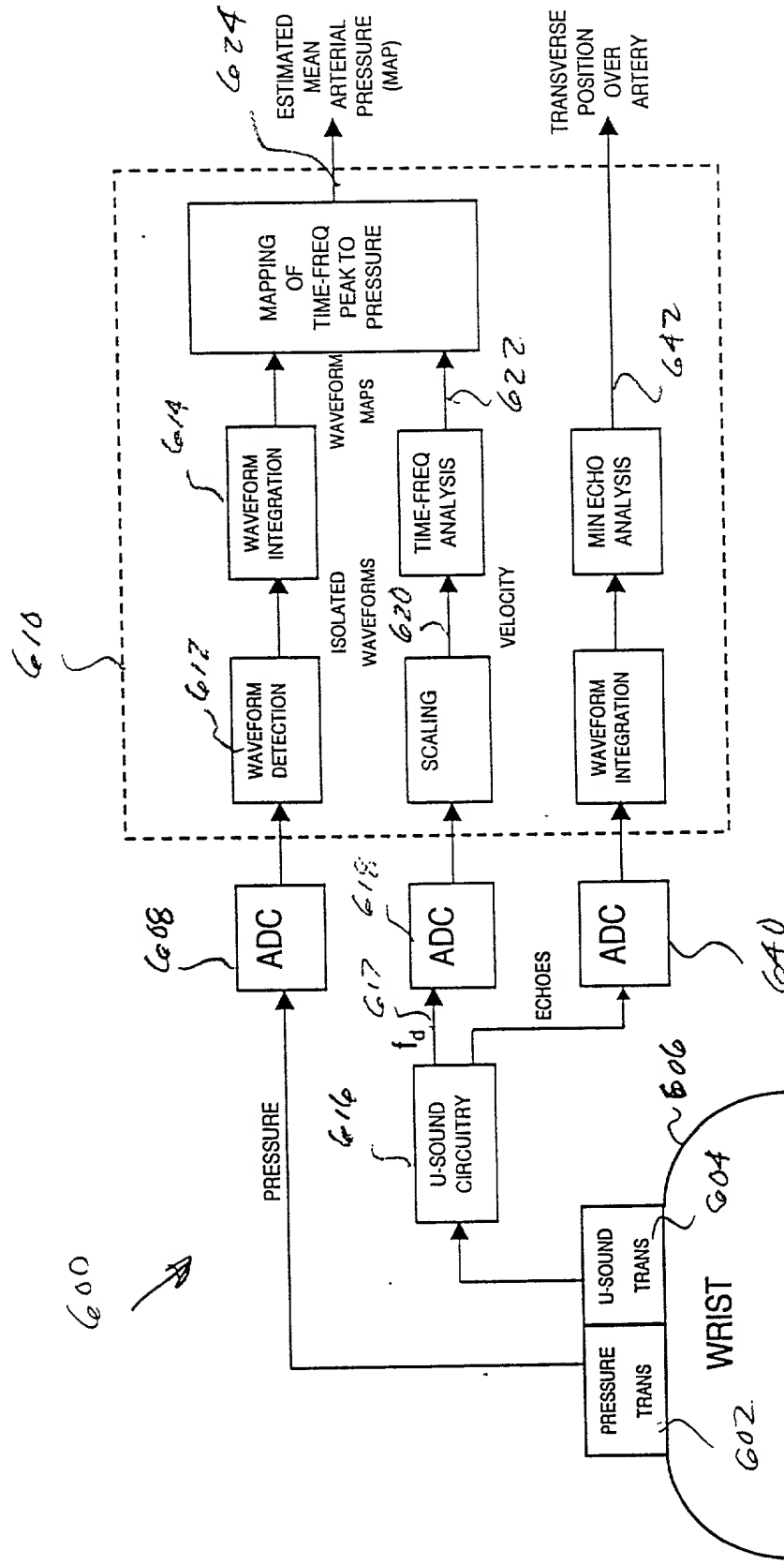


Fig. 6



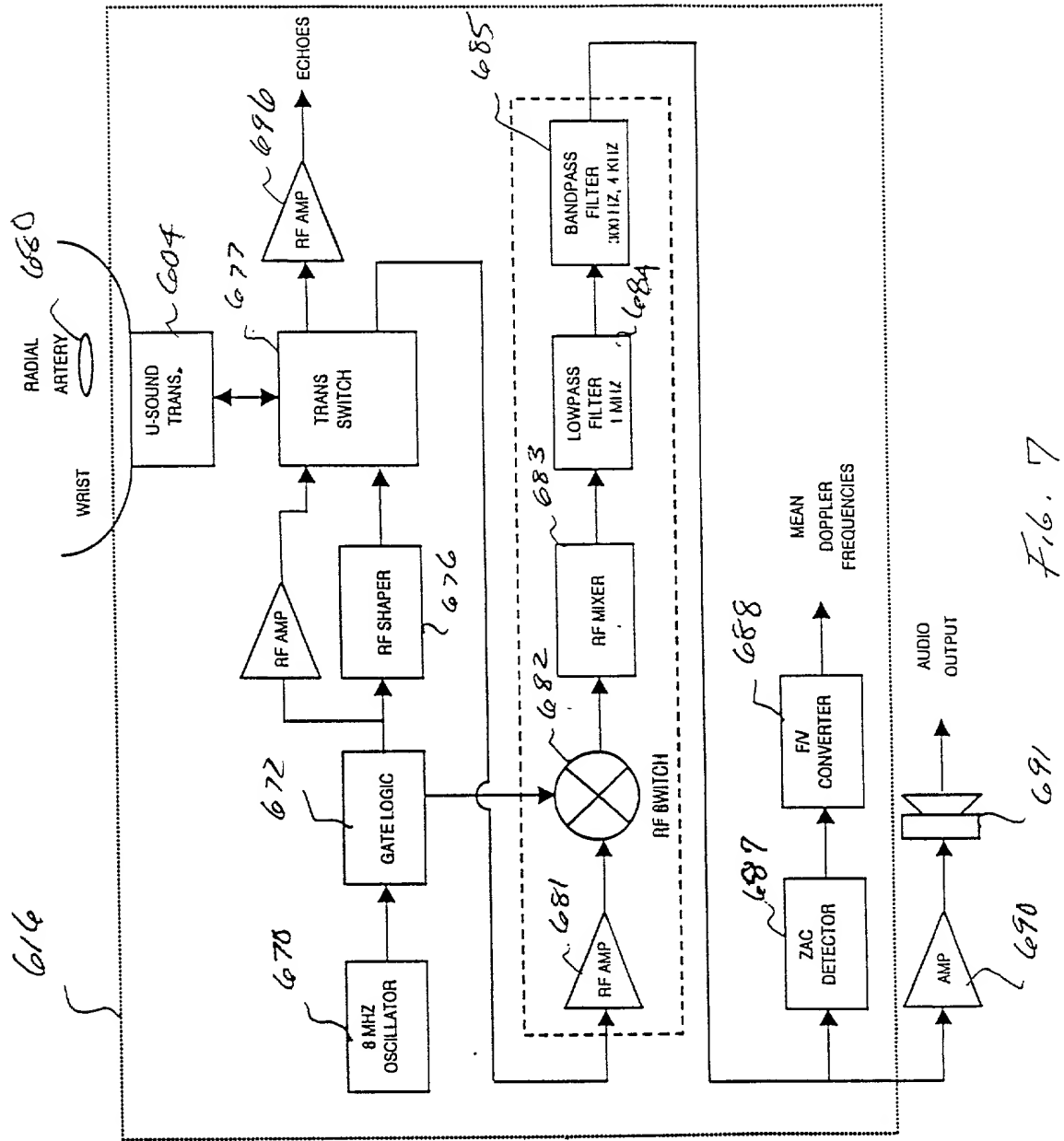
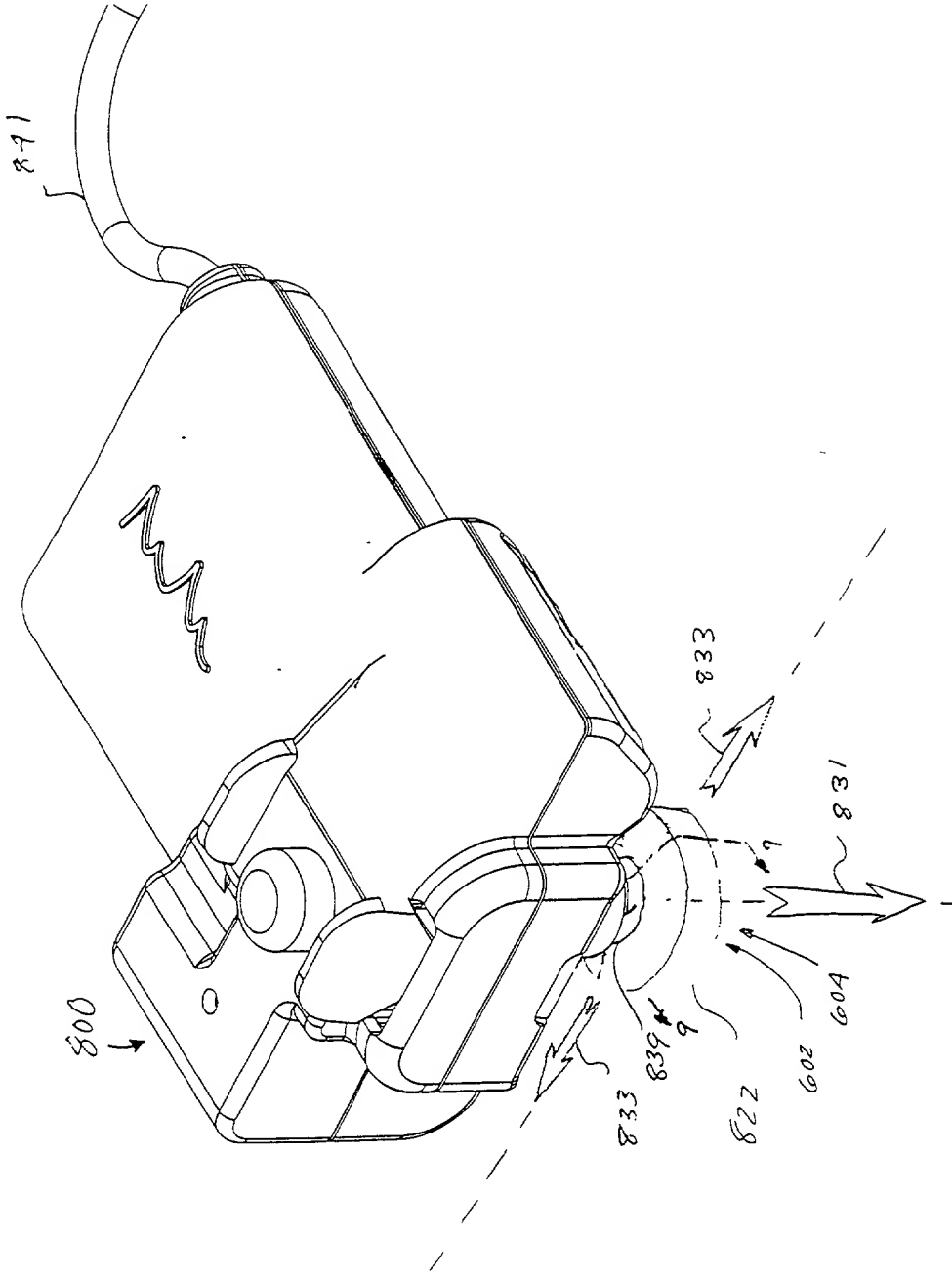


Fig. 7

FIG. 8



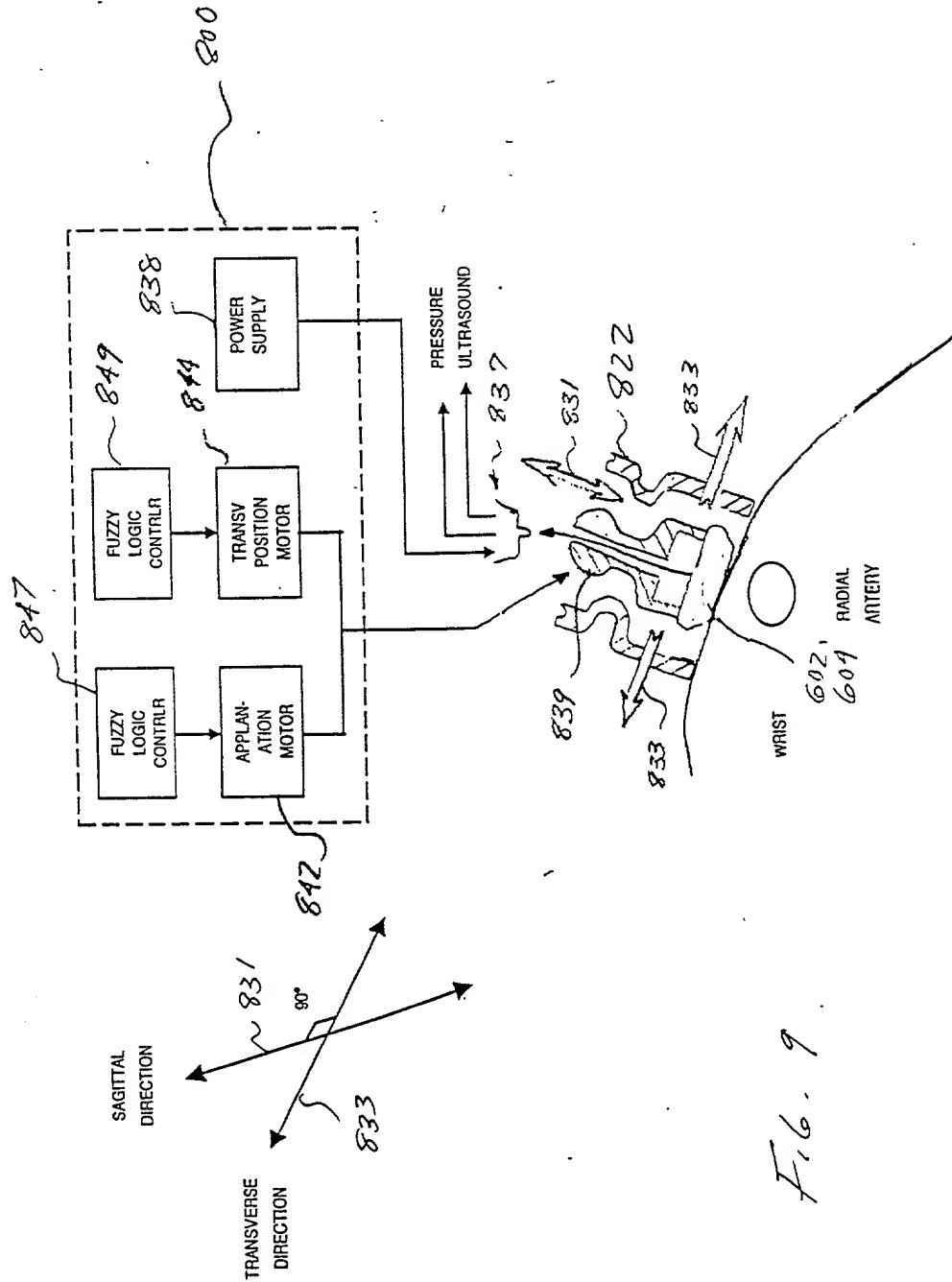
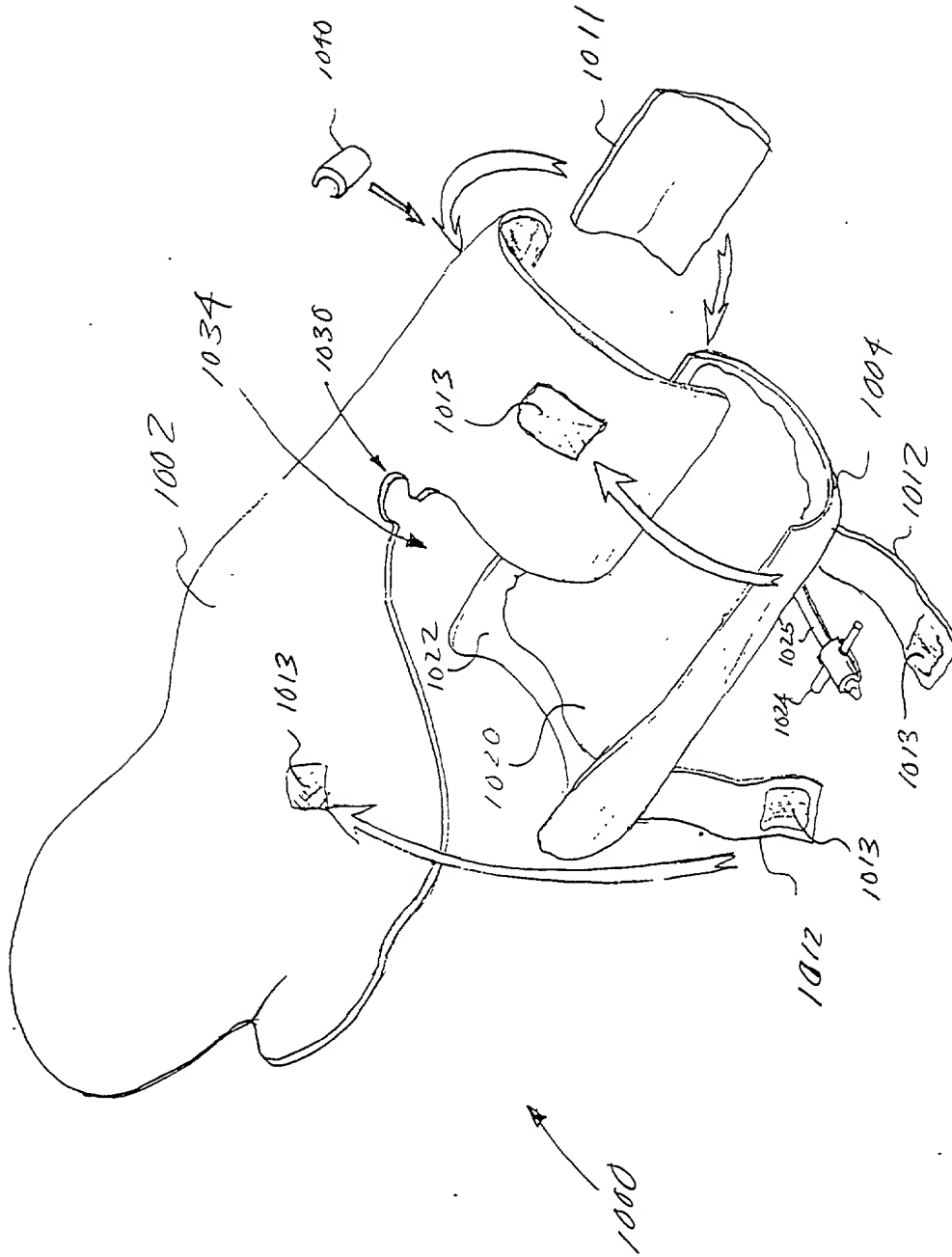


Fig. 9



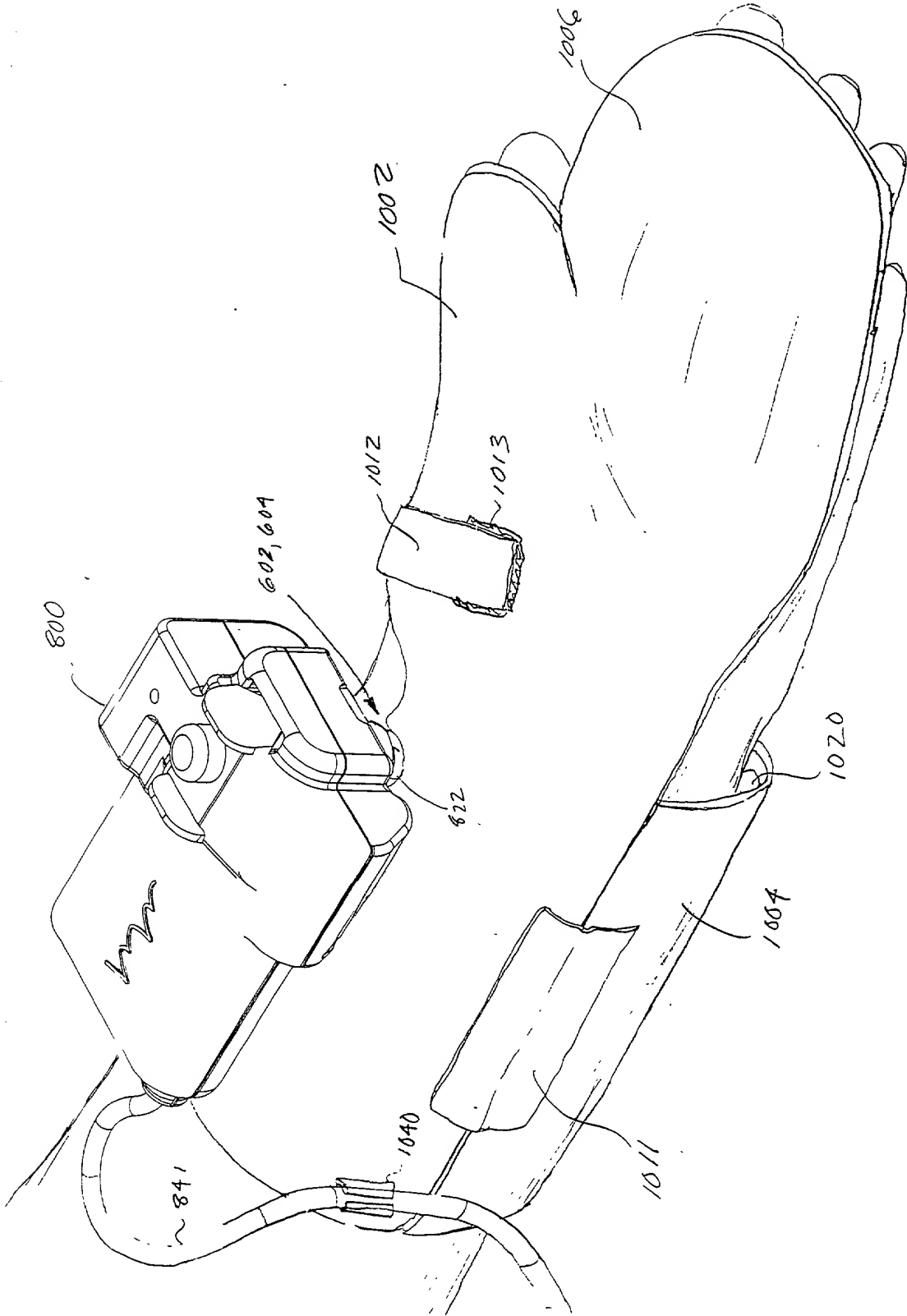
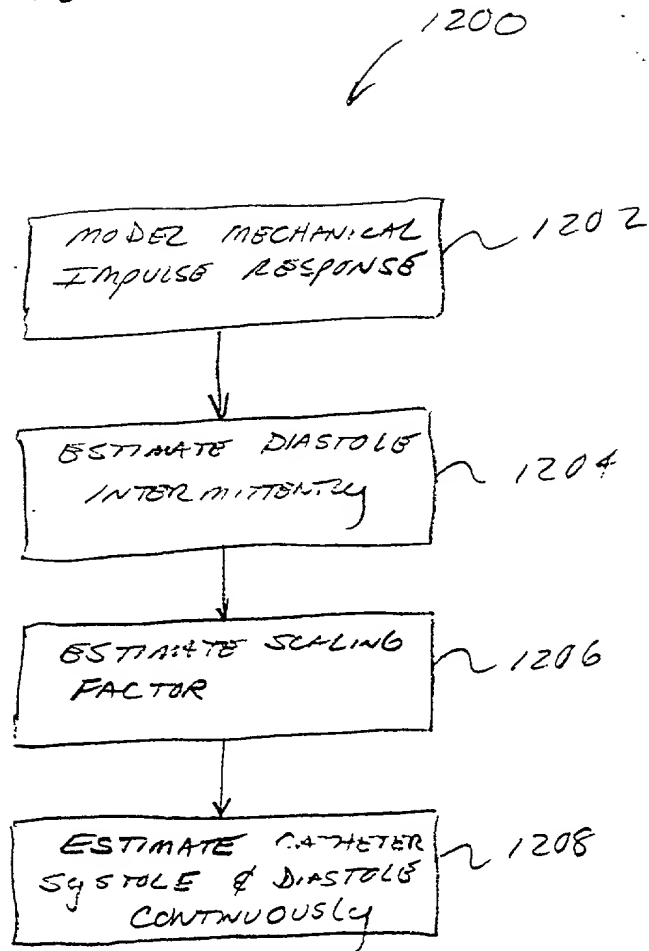


FIG. 12



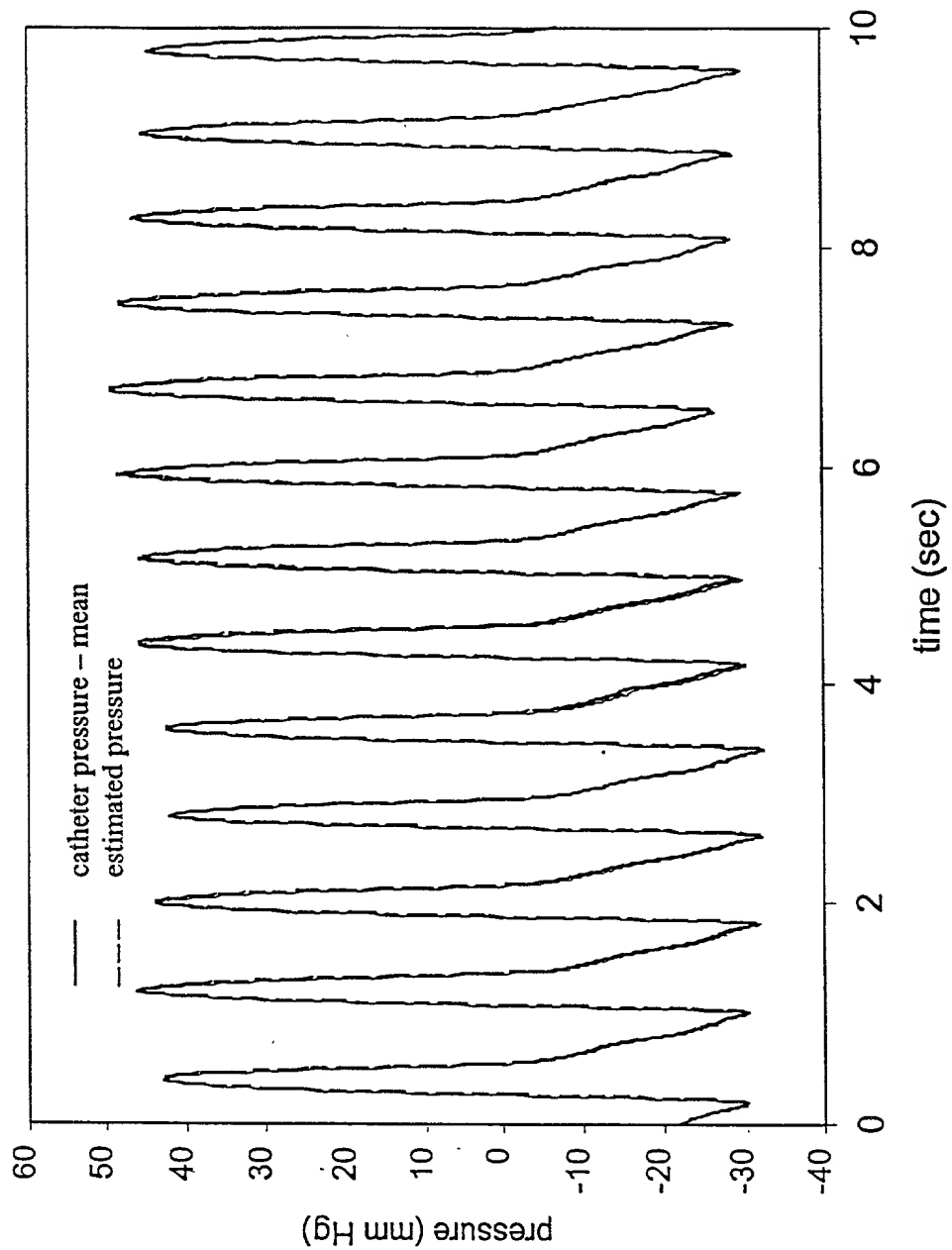


FIG. 13

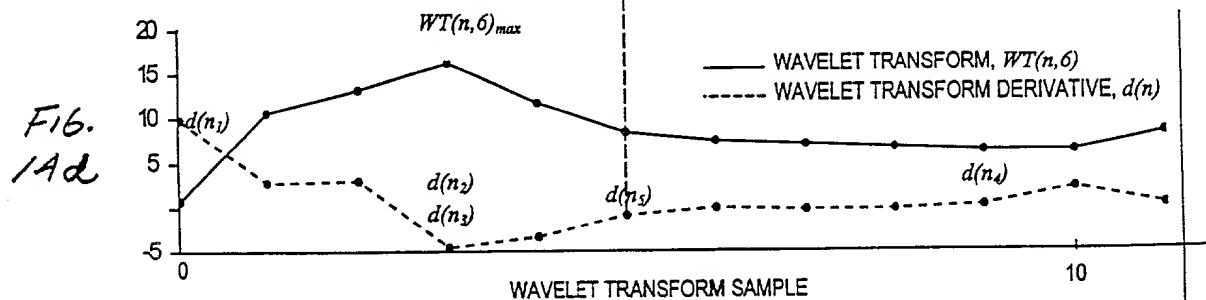
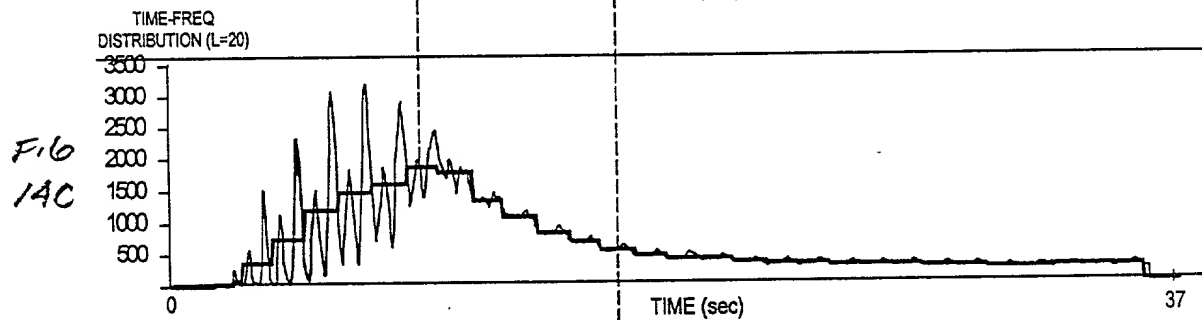
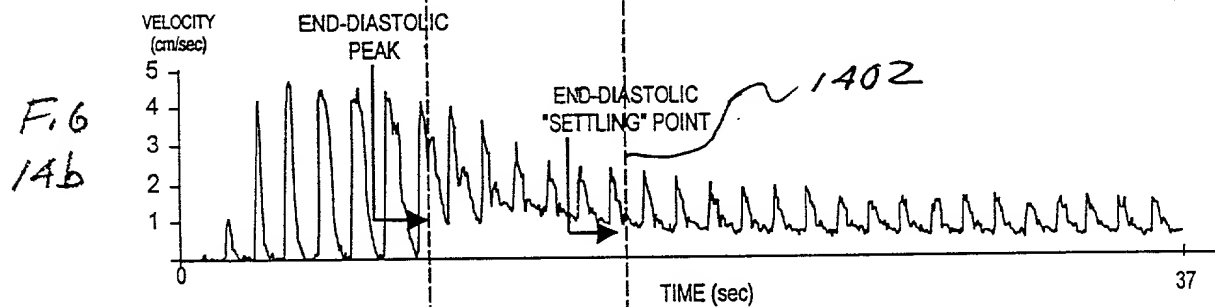
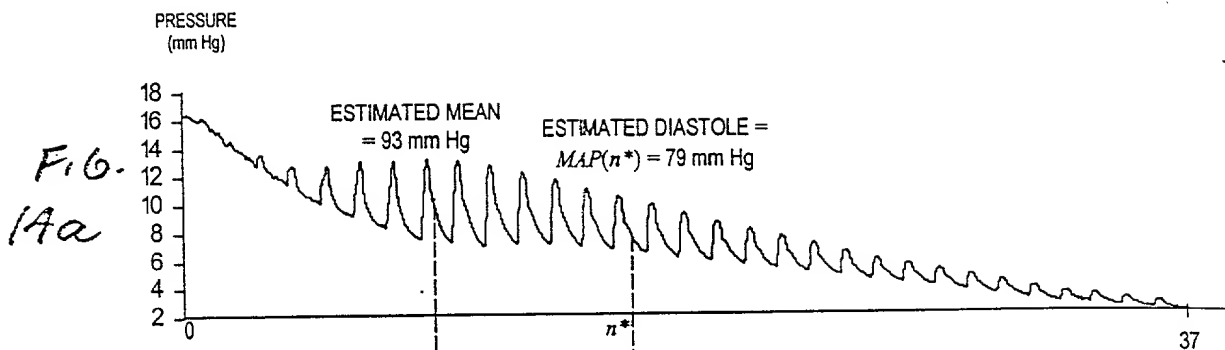




FIG. 15

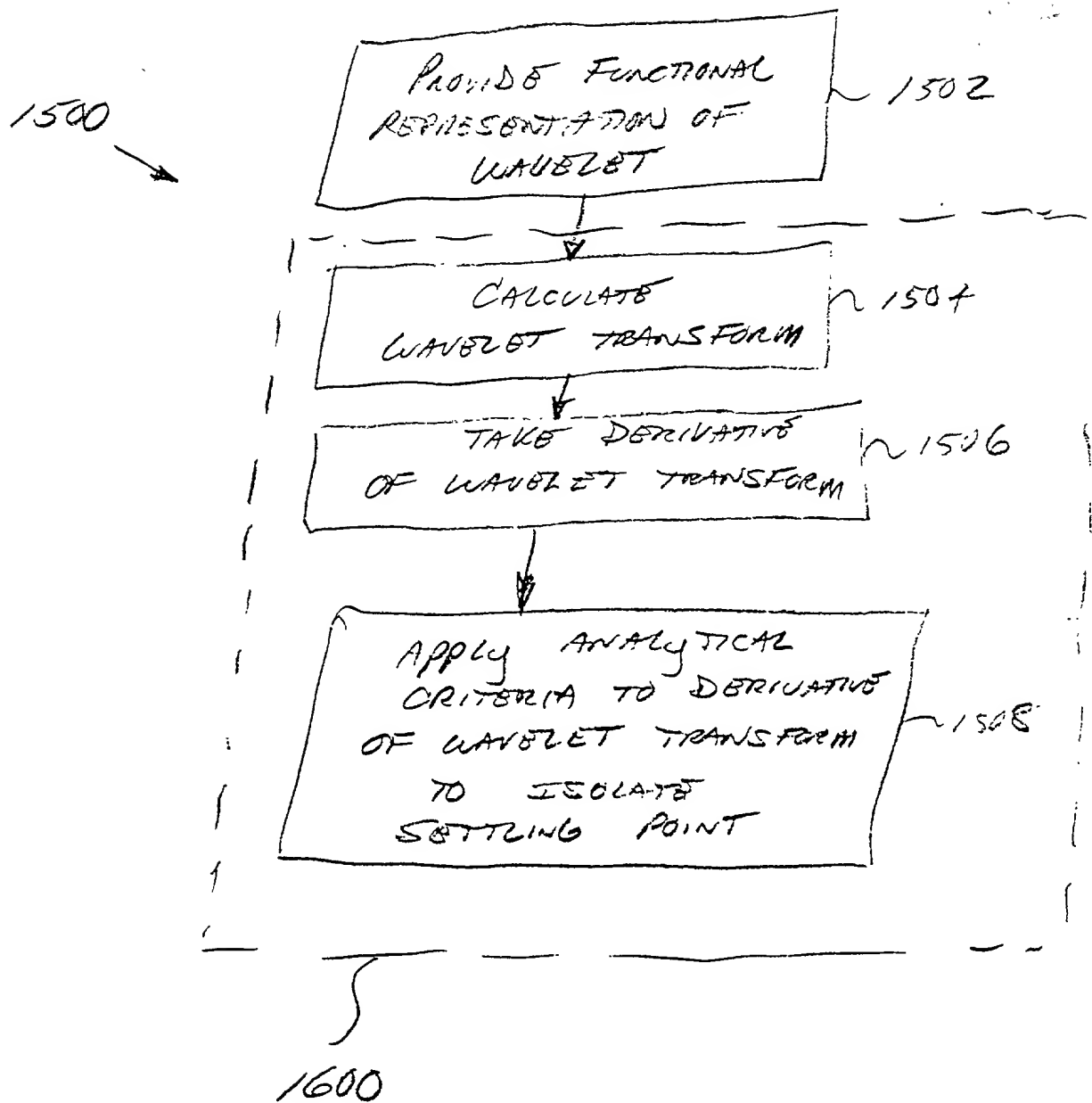
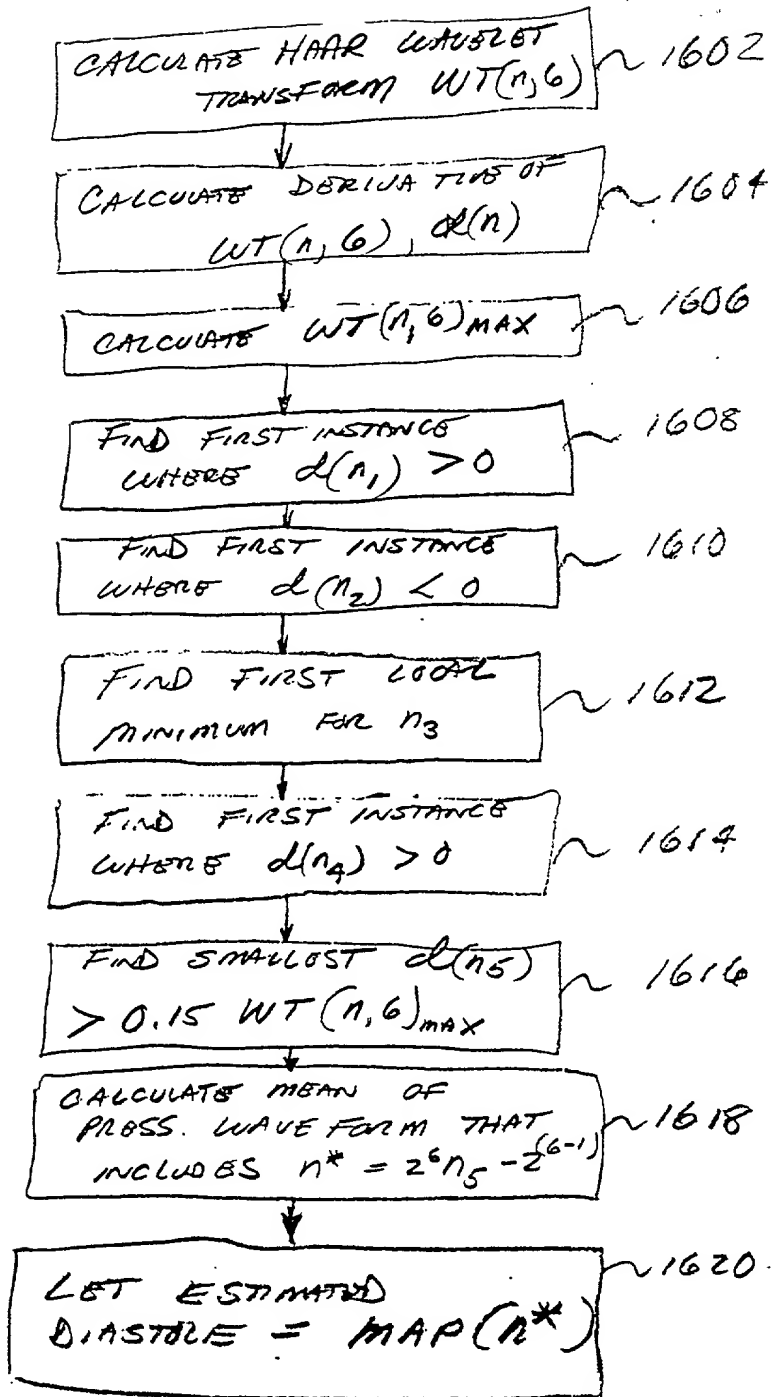


FIG. 16

1600



FOOT 60 22651360

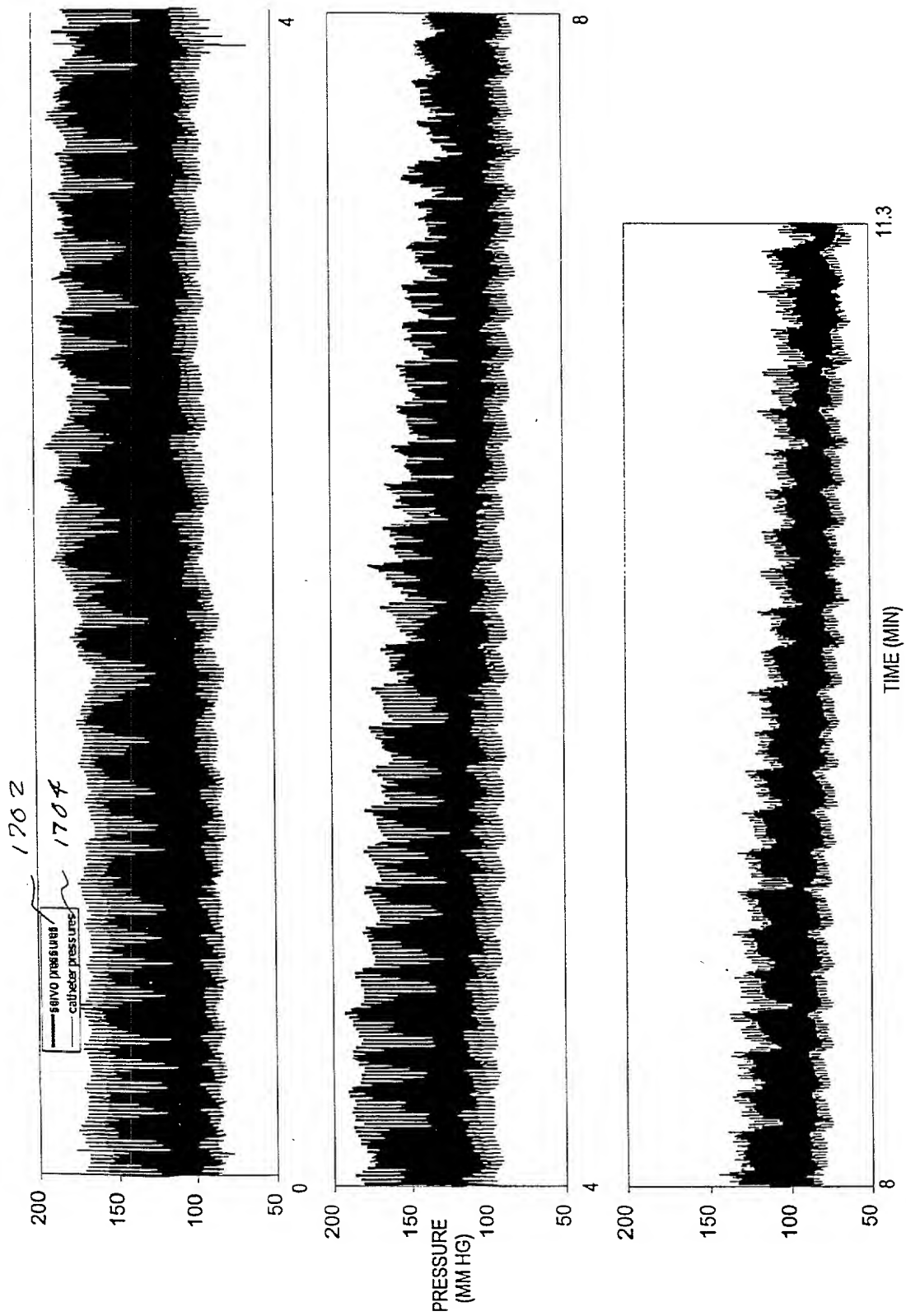
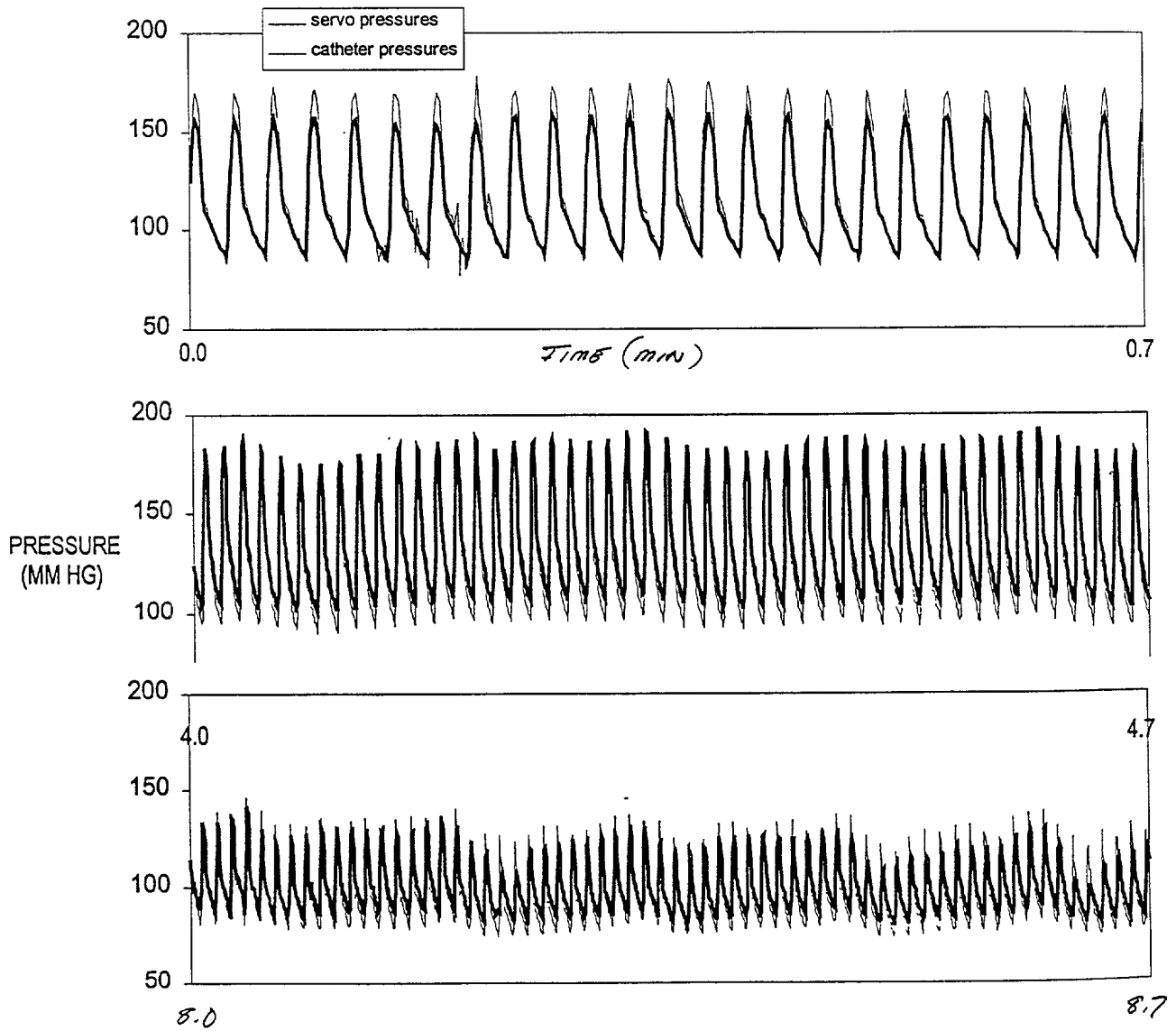


FIG. 17

FIG. 18



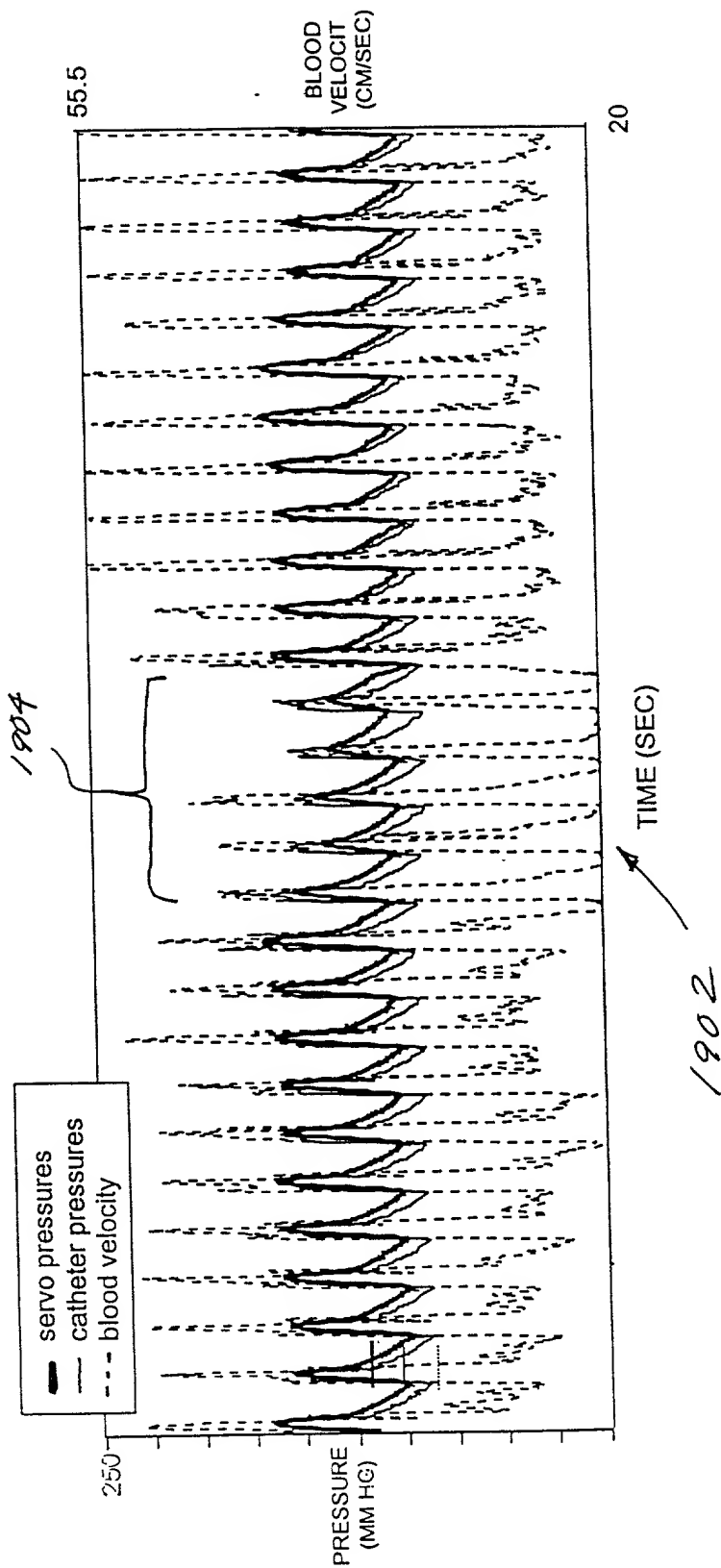


FIG. 19

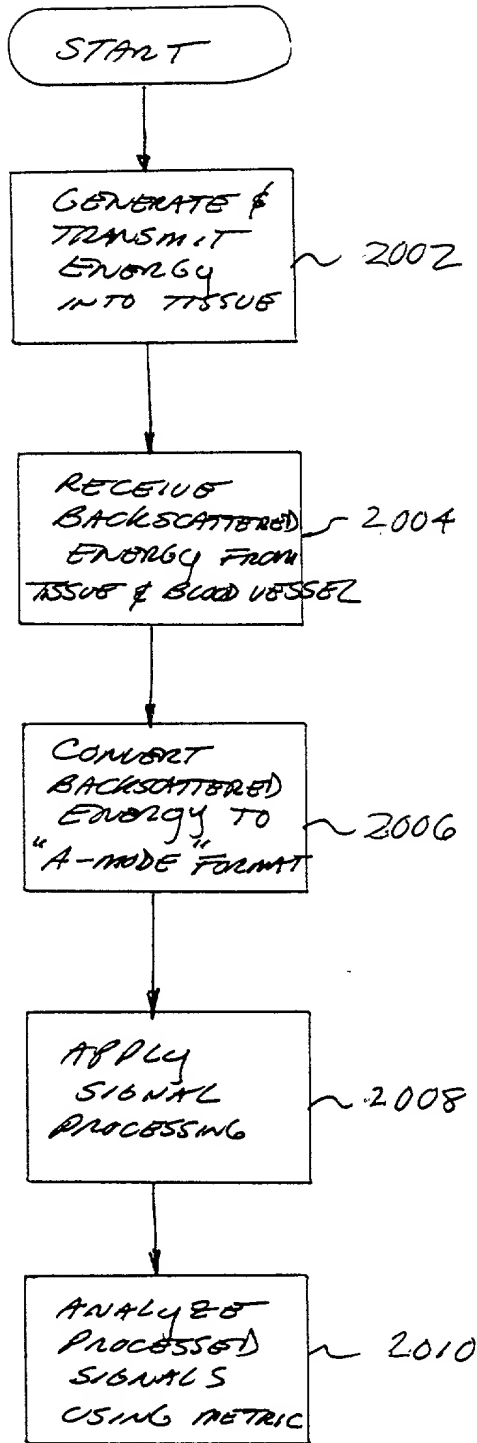
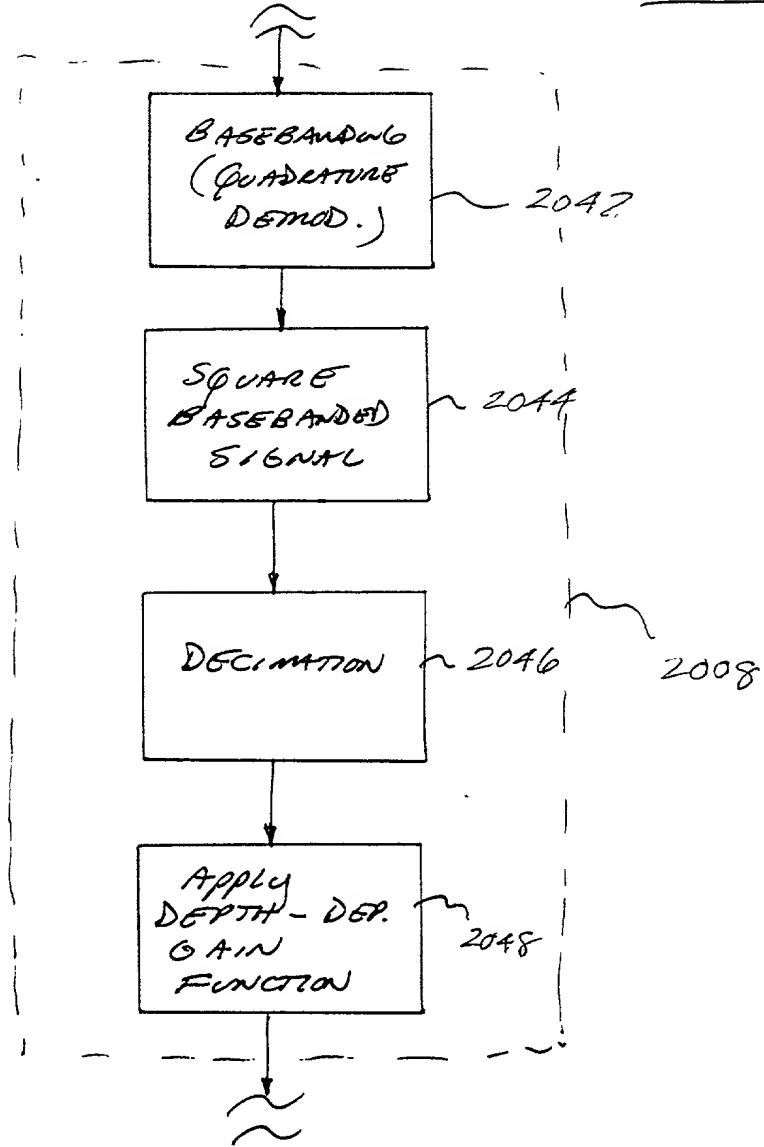


FIG. 20

2000

FIG. 20a



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graph LR; A[A-mode signal] --> QD[Quadrature Demodulate]; QD -- "complex envelope" --> MS[Magnitude Squared]; MS -- "envelope squared" --> TGC[TGC]; TGC --> AP["Average Power (1 mm interval)"]; AP --> DFM[Detect First Minimum]; DFM -- "location of blood within artery" --> AWS[Arterial Wall Search]; AWS -- "front and back arterial wall positions" --> Out[ ];
```

The diagram illustrates the processing sequence for A-mode signals. It begins with an 'A-mode signal' input, which passes through a 'Quadrature Demodulate' block. The output of this block is labeled 'complex envelope'. This signal then enters a 'Magnitude Squared' block, whose output is labeled 'envelope squared'. The signal then passes through a 'TGC' (Time Gain Control) block. The output of the TGC block is then processed by an 'Average Power (1 mm interval)' block. The output of this block is then processed by a 'Detect First Minimum' block. The output of the 'Detect First Minimum' block is labeled 'location of blood within artery'. Finally, the signal enters an 'Arterial Wall Search' block, which outputs 'front and back arterial wall positions'.

Figure 1 is a line graph showing the variation of the backscattered signal with depth. The y-axis is labeled  $\times 10^4$  and ranges from 3.35 to 3.85. The x-axis is labeled Depth (mm) and ranges from 0 to 7. The signal shows high-frequency oscillations between 0.5 and 1.5 mm, a relatively flat region between 1.5 and 3.5 mm, and another set of high-frequency oscillations between 3.5 and 4.5 mm. Labels "front arterial wall" and "back arterial wall" with arrows point to the first and second sets of oscillations, respectively.

Fig. 21



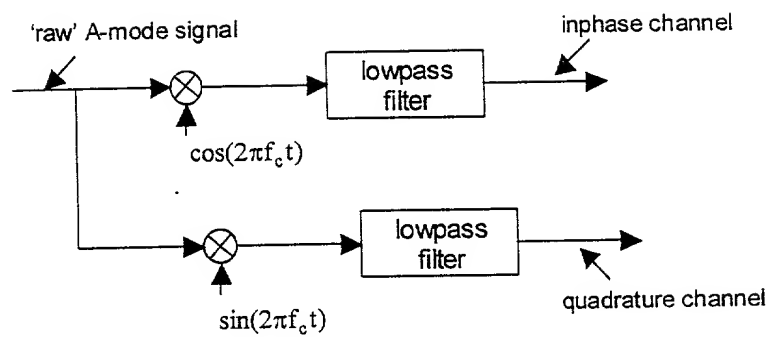


Fig. 24

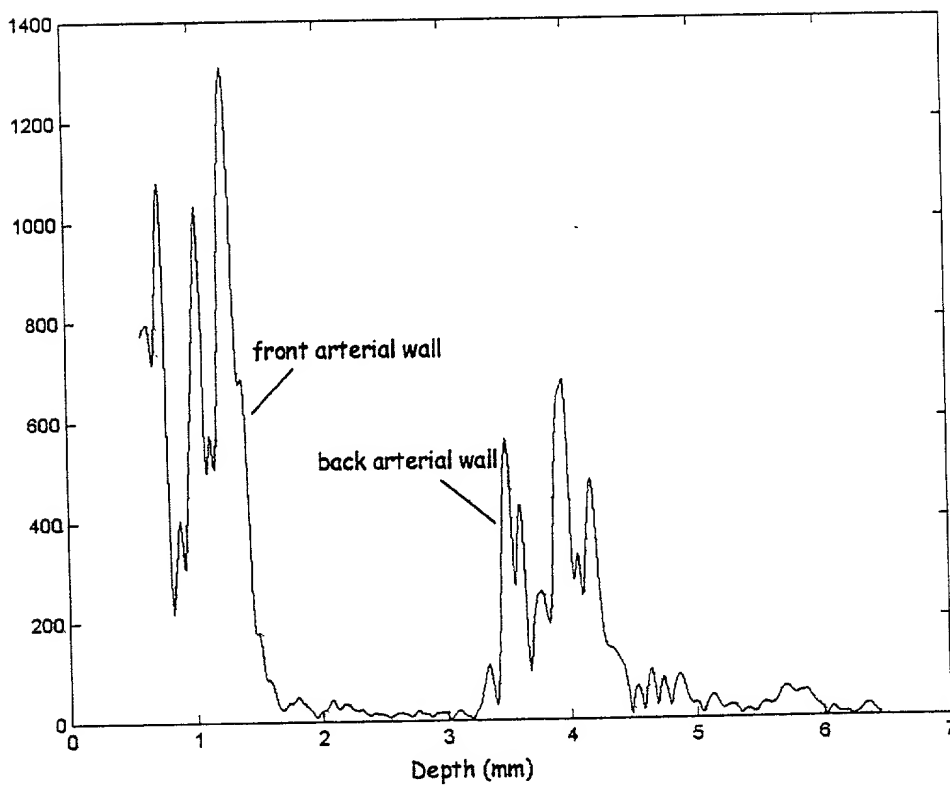


Fig. 22

2042

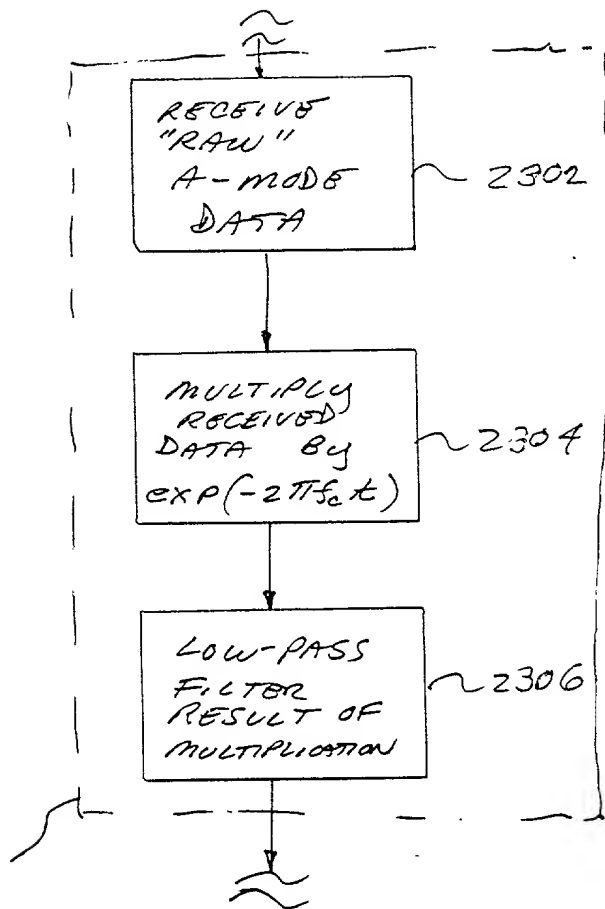


FIG. 23

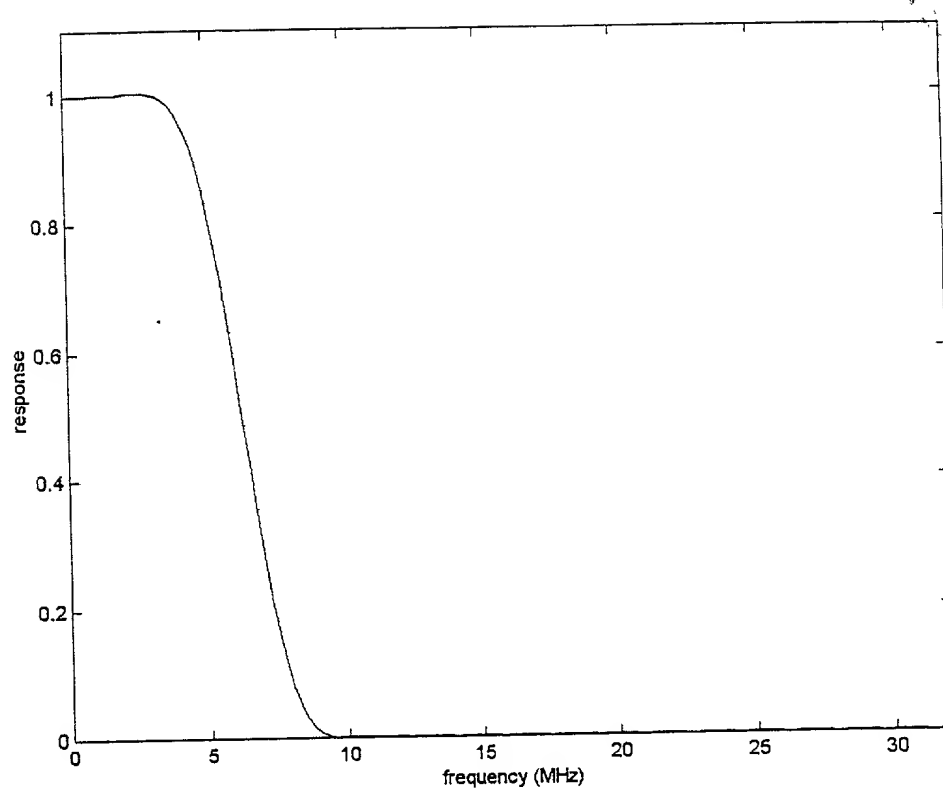


Fig. 25

FOOT-235-0940

FOOTING SHEET 360

-1
-1
0
2
4
6
6
2
-6
-16
-25
-26
-16
10
50
98
143
176
188
176
143
98
50
10
-16
-26
-25
-16
-6
6
6
6
4
2
0
-1
-1

FIG. 26

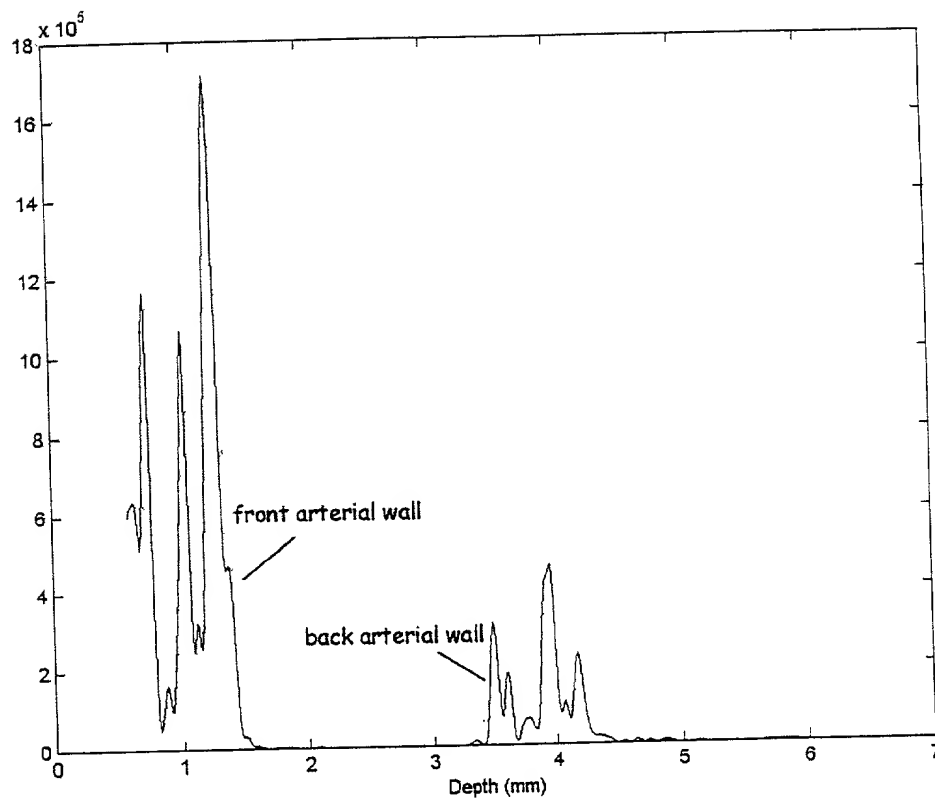


Fig. 27

09015983-091001

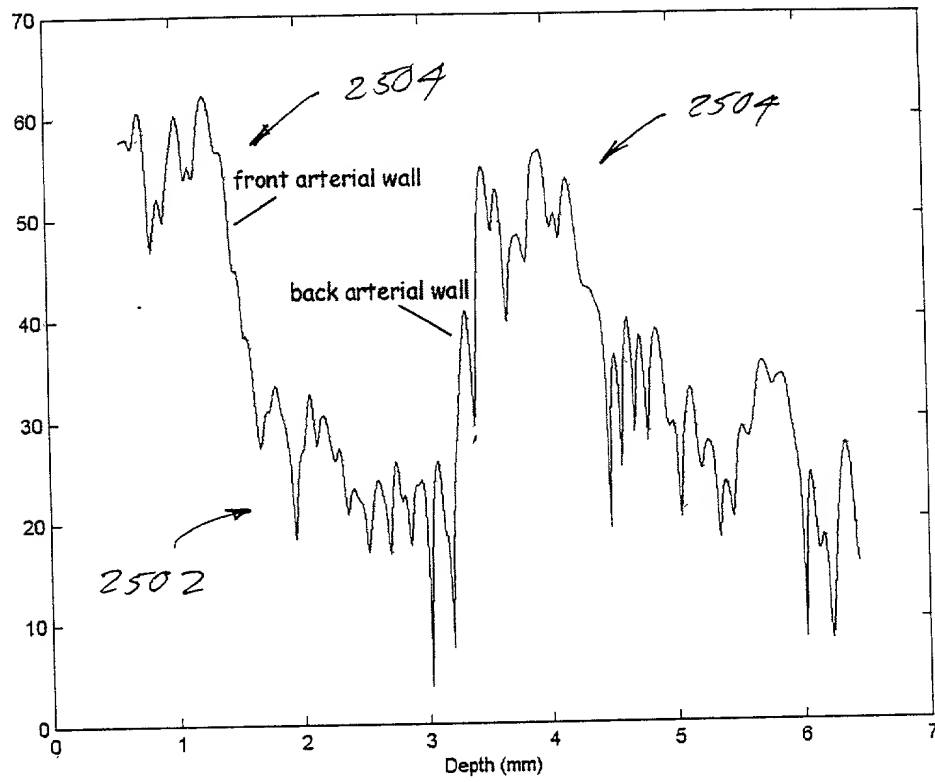


Fig. 28

09815982-091001

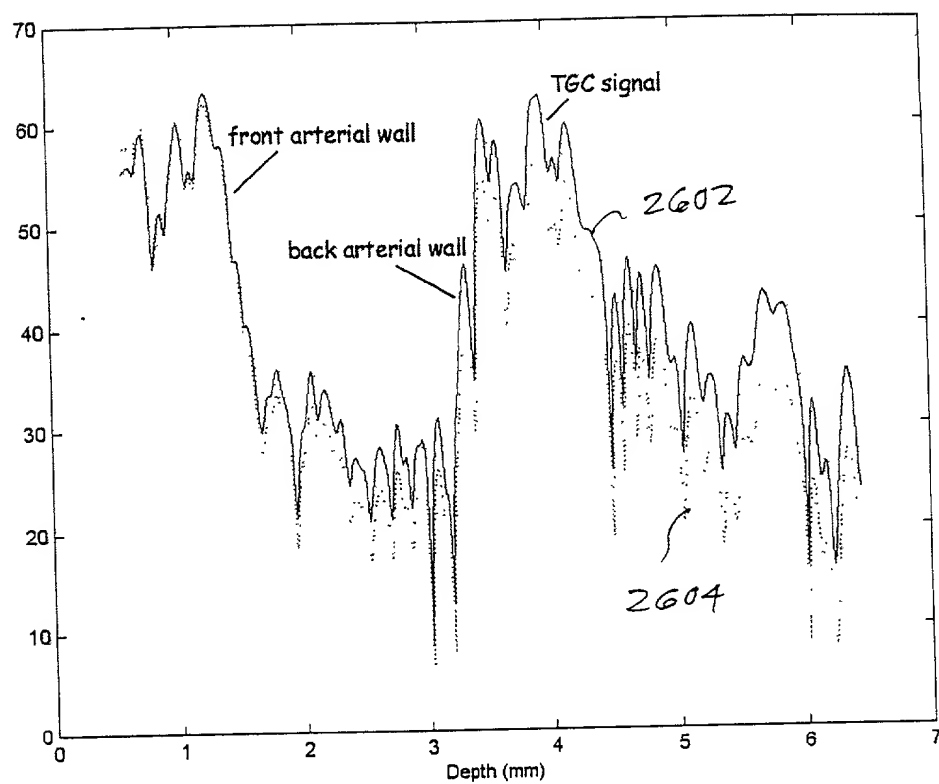


Fig. 29

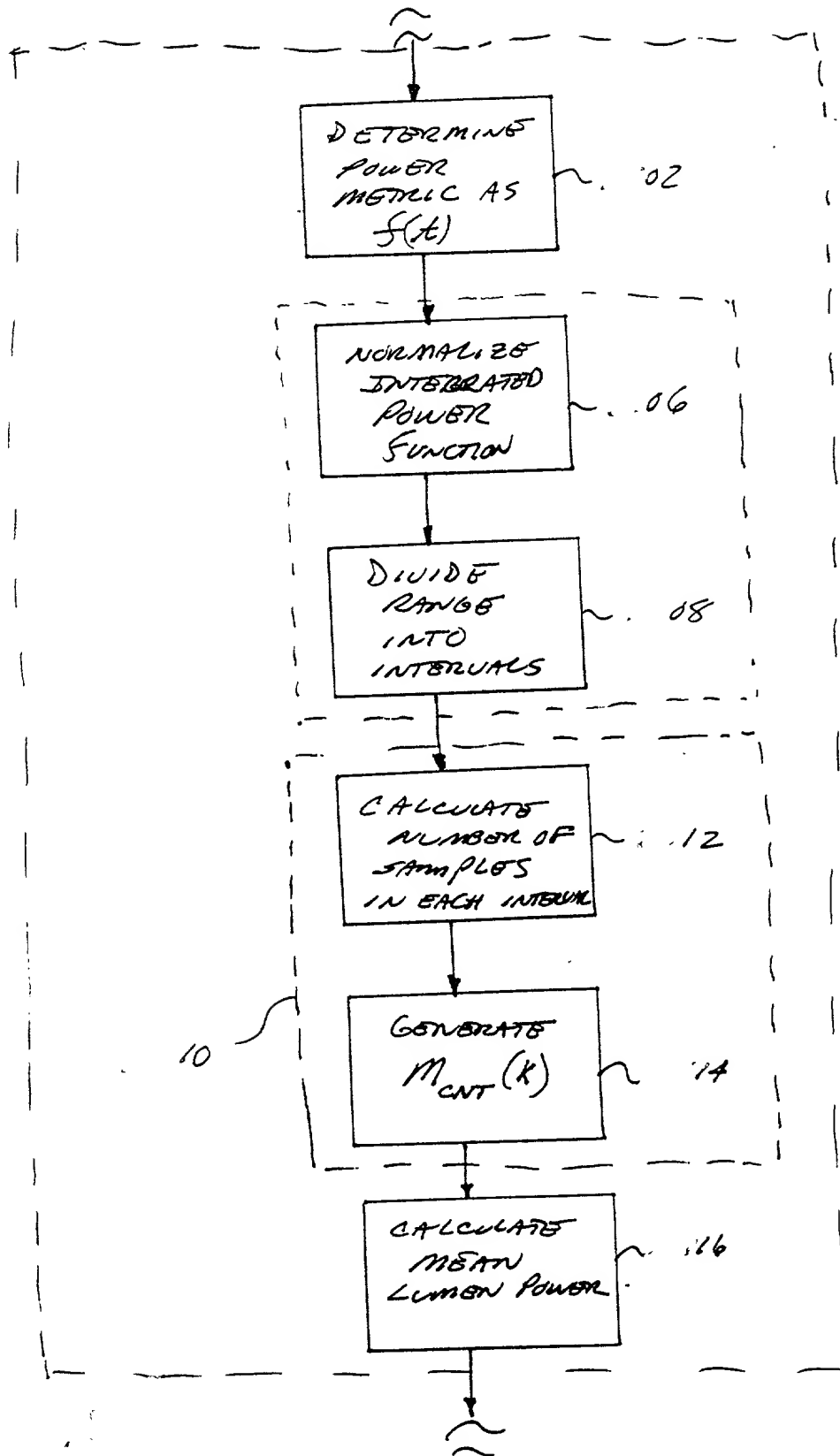


FIG. 30a



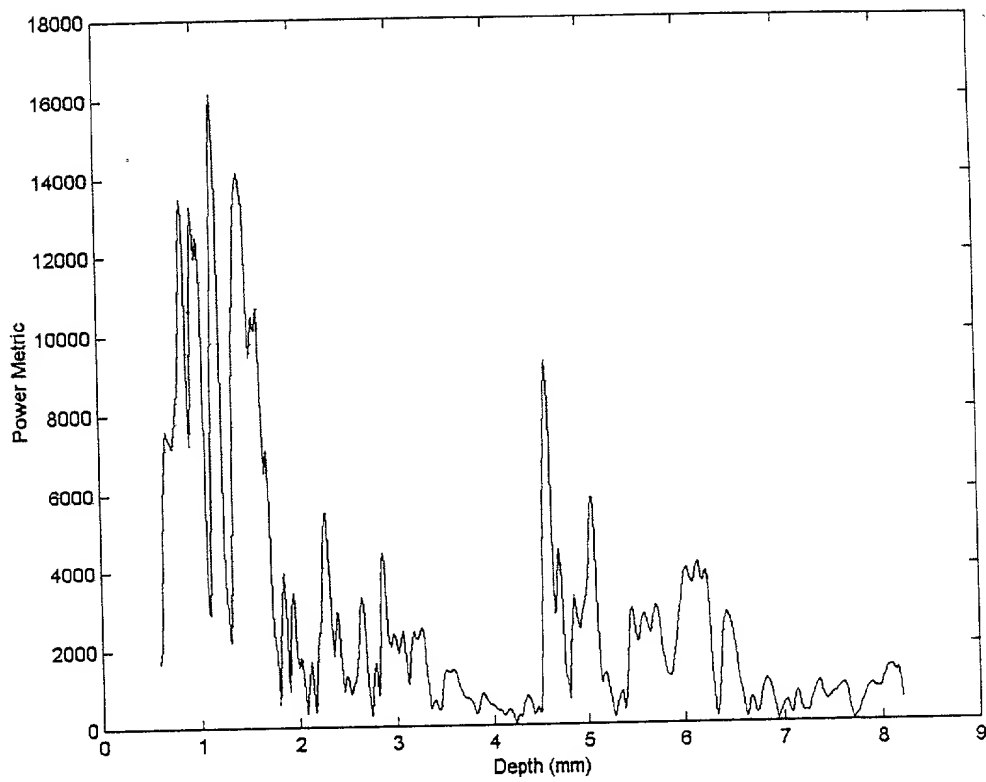


Fig.

306

09815933-091001  
T00160-285T860

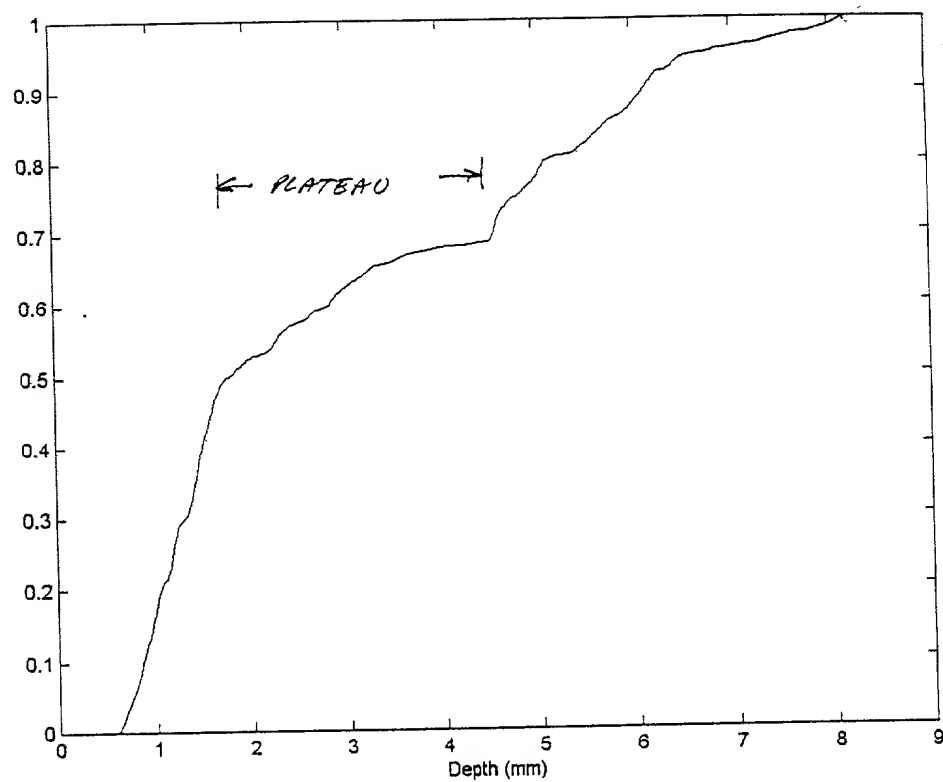


Fig. 30c

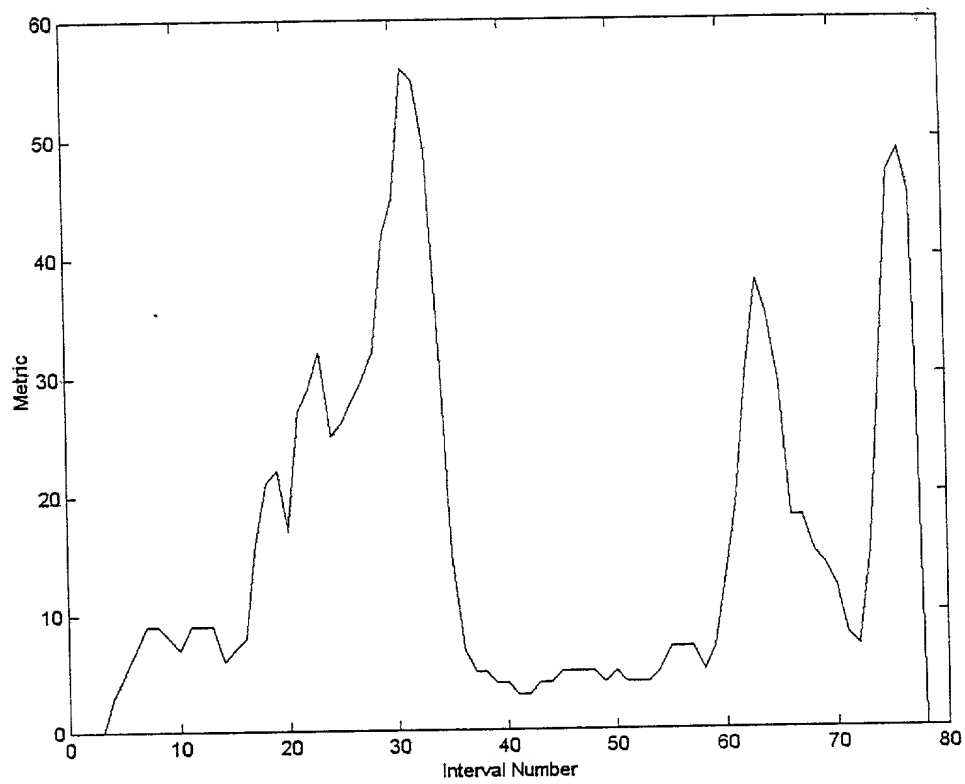


Fig. 30d

034592 09403  
T00760" 286T860

100150-28651860

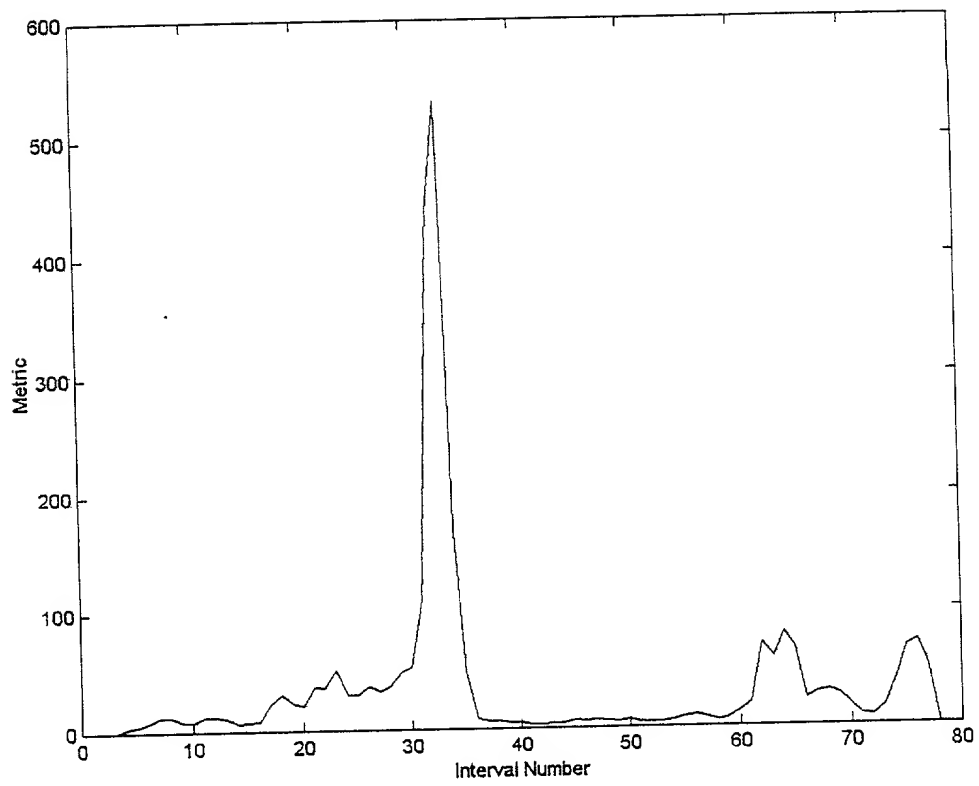


Fig. 30e

09815982-091001

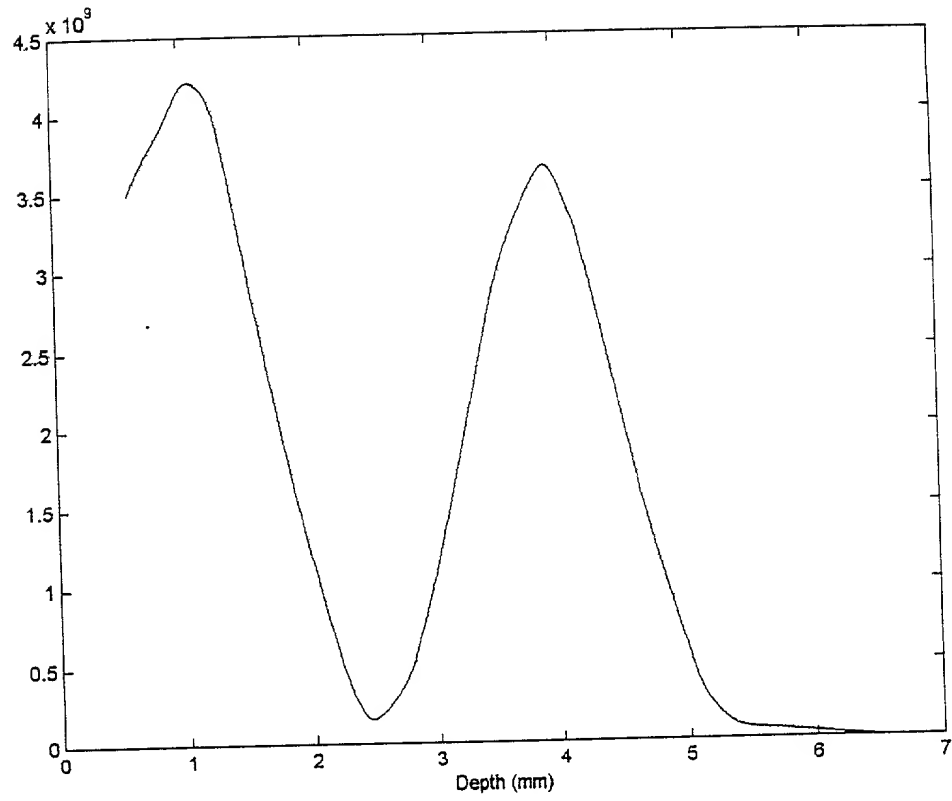


Fig.

3/a

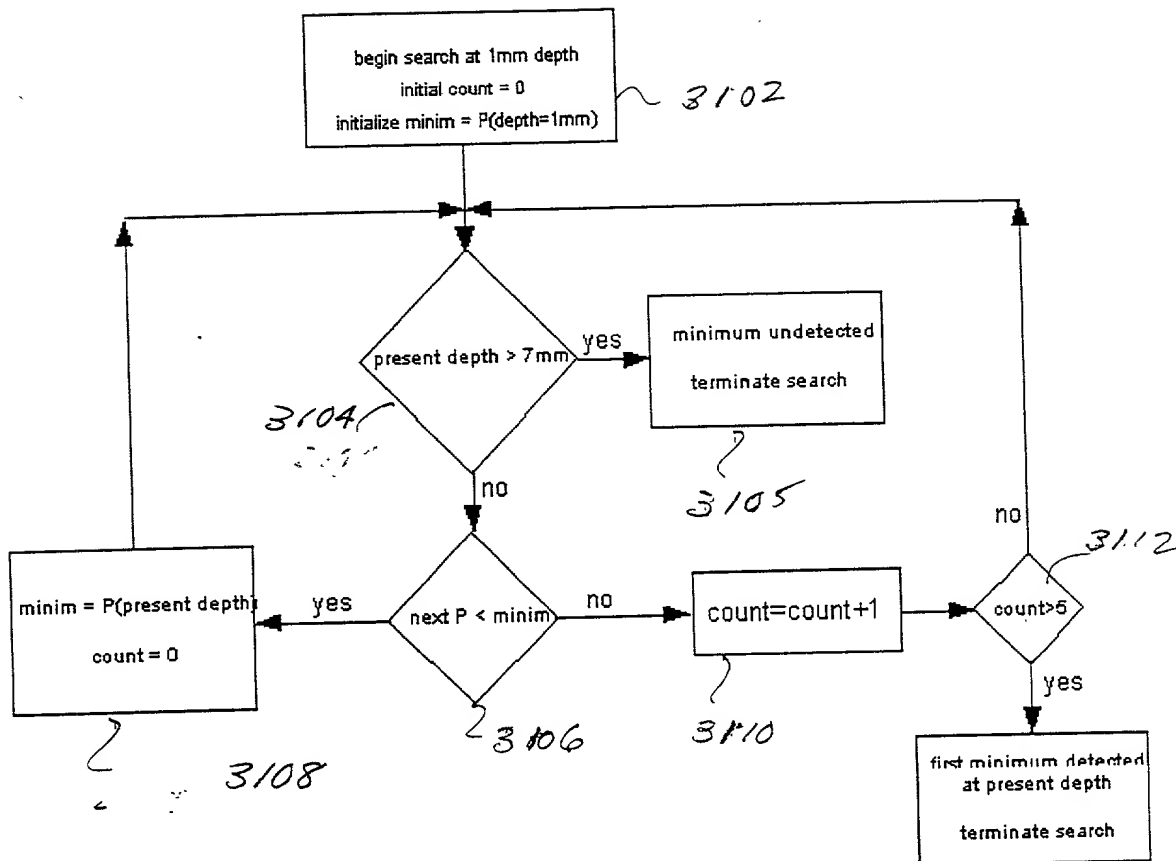
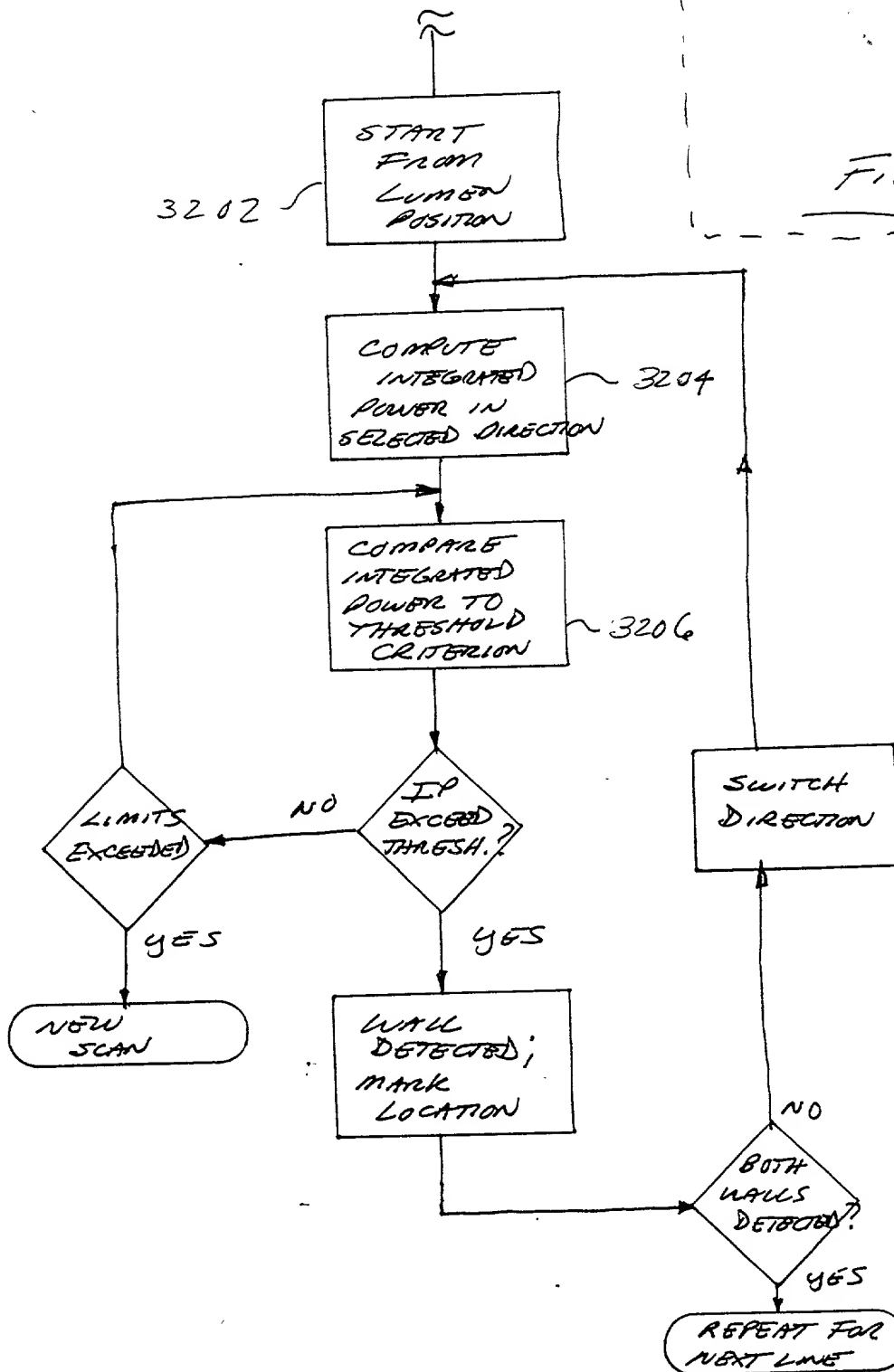


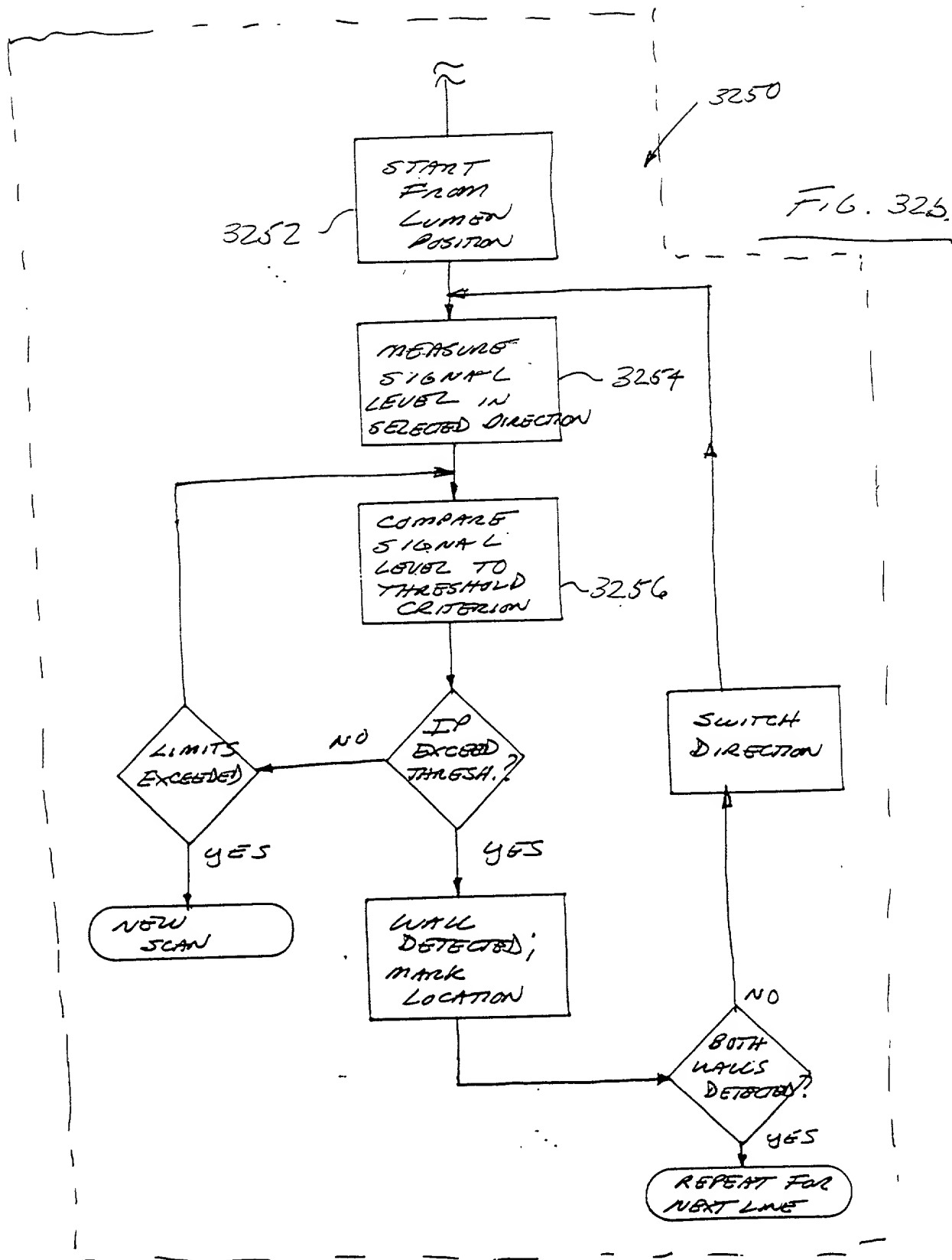
Fig.

3/6

3202

FIG. 322







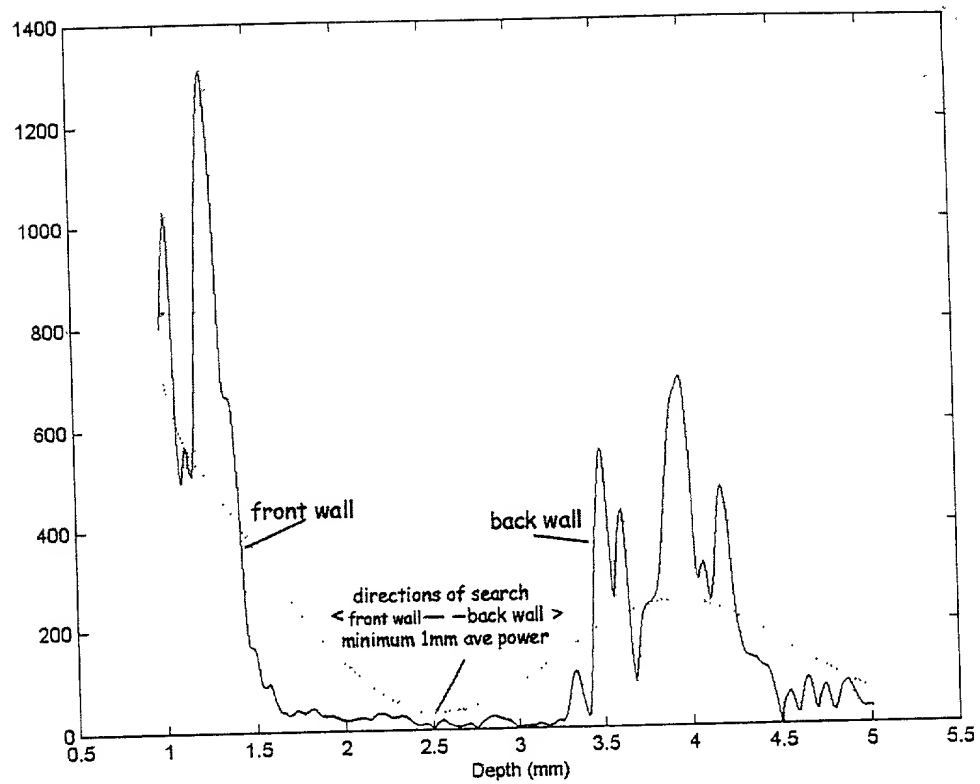


Fig. 33

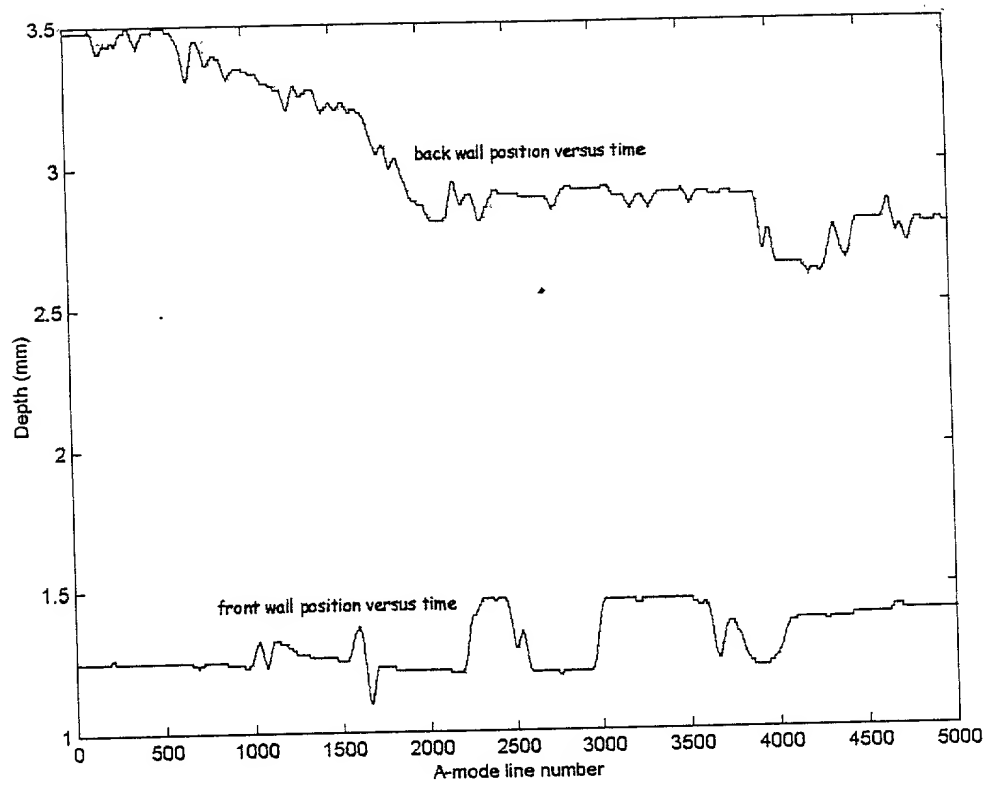


Fig. 34

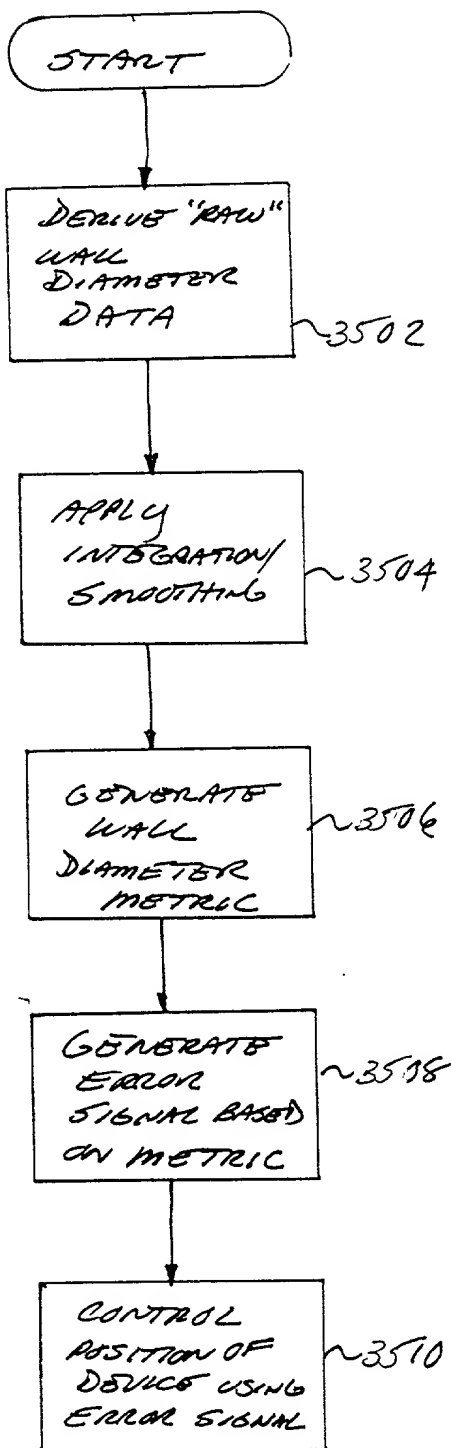


FIG. 35

3500  
↓